

الجامعة
البريطانية في
دبي



The
British University
in Dubai

A Governance Approach: Exploring the PMO Characteristics on Project Success and Failure

مقاربة الحوكمة: بحث مزايا مكتب إدارة المشاريع على نجاح أو فشل المشاريع

Prepared By

Noora Alaray

120042

Dissertation submitted in partial fulfilment of the requirements for the degree of
Master of Science in Project Management

Faculty of Engineering & Information Technology

Dissertation Supervisor

Professor Ojiako Udechukwu

June 2016

Abstract

Research on project management office (PMO) has revealed different perspectives as to how PMO should be implemented. Although it is recognized that PMO has been around as early as in the 1990s, recent study shows that many has just been created or restructured (Kerzner, 2003), but there value has constantly been a thing of discuss. In this study, the purpose is to explore the role of PMO and understand how PMO's contributes to project success or failure, approach which is defined through governance. In order to explore the issue surrounding this fate, a triangulated approach was adopted so that facts can be capture from different perspectives such that the problem definitions underlying this research study can be addressed. The study was basically a descriptive one, and was design using a qualitative and quantitative methods in its approach to collect data. While the approach may read as being conducted sequentially, it was actually carried out using a concurrent approach, in order that a confirmatory to existing literatures can be ascertain on this issue. The study employed the use of questionnaire and interviews as a means to elicit information from participates. The questionnaires questions focused on the PMO characteristics as defined by functions, contributions, and structure, whereas, the interviews uses a structured interview format to gather the theoretical perspective of governance in relation to PMO on project success and failure. The outcomes as in the case of the qualitative study depicts some descriptive codes/categories/themes pertinent to the successful establishment and functioning of PMOs, and this includes: structure; leadership; management; well governed; flexibility; risk management among other. On the other hand, the quantitative study revealed the importance of those PMO variables via a weighted average, and subsequently, the percentage relationship were explained. It was noted that the research study does not reveal the sector of concern, but acted on the broader orientation of PMOs. As such, proffers for future studies to be carried out in this regard. However, the practical implications is that PMO is a Center of Excellency whose standards and objectives are applicable on a broader view. It was noted that the concerned organization i.e. ABC would benefit immensely from the study's findings because it was actually design to understudy the problems confronting that organization. Hence, certain recommendations have been suggested as to how those problems can be addressed, and these includes: organizational business initiatives should pay attention to the leadership, standards, management etc. and juxtapose their needs with the necessary PMO characteristics by importance as identified in this study.

كشفت الأبحاث على مكتب إدارة المشاريع (PMO بي إم أوه) عدة وجهات نظر مختلفة عن كيفية إستعماله وطريقة تطبيقه. ومع العلم "مكتب إدارة المشاريع" موجود منذ التسعينات، فقد أثبتت بعض الدراسات الحديثة أن الكثير منه قد تم إنشاؤه أو إيجاده مؤخرا (كريزير، 2003)، ولكن جدواه كانت دائما محل جدل. هذه الدراسة تهدف إلى بحث الدور الذي يقوم به "مكتب إدارة المشاريع" ومدى مساهمته في تحقيق النجاح أو الفشل للمشاريع، الأمر الذي يتم تعريفه من خلال الحوكمة. ومن أجل بحث القضية المتعلقة بهذا البحث فقد تم إعتداد نهج ثلاثي الأبعاد من أجل تبيان الحقائق من عدة زوايا لغاية الوقوف على التعريفات المختلفة التي حفزت هذا البحث. لقد كان هذا البحث بحث وصفي وصمم بإستعمال وسائل كمية ووسائل نوعية للحصول على البيانات. بينما يمكن للمقاربة أن تفهم بأنها تمت بشكل تسلسلي، إلى أنها في حقيقة الأمر تمت بأسلوب متزامن وذلك للتأكد من أن الأدبيات الحالية مرتبطة بالقضية. وظفت هذه الدراسة الاستبيانات والمقابلات كوسائل للحصول على معلومات من المشاركين. وركزت أسئلة الإستبيان على المميزات الخاصة بمكتب إدارة المشاريع كوظائفه ومساهماته وتركيبته بينما لجأت المقابلات للأسلوب المركب في المقابلات لجمع وجهات النظر في الحوكمة النظرية بخصوص مكتب إدارة المشاريع، أي نجاحاته وإخفاقاته. النتائج كما في حالة الدراسة النوعية فكت بعض الشيفرة الوصفية، والأفكار والأنواع المتعلقة بالتطبيق الناجح لمكتب إدارة المشاريع وهذا الشيء يتضمن التركيبة والقيادة والإدارة وإدارة المخاطر والمرونة وأشياء أخرى. ومن ناحية أخرى فإن الدراسة الكمية أظهرت أهمية المتغيرات العائدة لمكتب إدارة المشاريع عن طريق المعدل الموزون ولاحقا عن طريق تفسير علاقة النسبة المئوية، وقد لوحظ أن البحث لا يفسر الخوف والقلق المصاحب ولكن إعتد الترتيب العام لمكتب إدارة المشاريع. وعليه يقترح البحث أن الدراسات المستقبلية تكون على هذا النمط. ولكن، التبعات العملية لذلك هو أن مكتب إدارة المشاريع هو مركز تميز له مقاييسه المعيارية ومواصفاته وأهدافه القابلة للتطبيق في المجال الأوسع. وقد لوحظ أن المؤسسة المعنية في الدراسة (إيه بي سي) إستفادت بشكل كبير من توصيات الدراسة لأنها صممت فعليا لفهم المشاكل التي تعاني منها تلك المؤسسة. ولهذا فإن بعض التوصيات تم اقتراحها لكيفية معالجة تلك المشكلات، وهذا يشمل المبادرات التنظيمية في العمل التي يجب أن تهتم بالقيادة، المقاييس المعيارية، الإدارة، الخ وتضع إحتياجاتها وجها لوجه مع الميزات الضرورية لمكتب إدارة المشاريع حسب الأهمية كما عرفته هذه الدراسة.

Table of Contents

Abstract	2
Chapter 1.0: Introduction	3
1.1 Background	7
1.1.1 Reasons for Project Failure	7
1.1.2 Need for PMO to influence Project Success	8
1.1.3 Justification for the Need of PMO	9
1.2 What is project?	12
1.3 What is project management?	13
1.4 How are projects implemented?	14
1.4.1 How? – Project Implementation	14
1.4.2 Why? - Project Implementation	14
1.4.3 When to Project Implementation	15
1.4.4 Who? – Project Implementation	16
1.5 Why do Projects Fail or Succeed?	17
1.6 Project Governance	18
1.6.1 What is governance?	18
1.6.2 Forms of Governance	21
1.6.3 Governance in the context of projects	25
1.6.4 The PMO as a form of Governance	26
1.7 The role of the PMO in project failure	27
1.8 The role of the PMO in project success.	28
1.9 What is a PMO?	29
1.9.1 History of the PMO	30
1.9.2 Types/Forms of PMO	31
1.9.3 Advantages of PMO	32
1.9.4 Disadvantages of PMO	33
Chapter 2.0: Project Success and Project Failure	34
2.1 What is "success"?	35
2.2 What is "failure"?	35
2.3 Types of success	36
2.4 Types of Failure	38
2.5 Fundamentals of project success and failure	38

2.6 Developments in the literature	39
2.7 The Problem Statement	40
2.8 Aim of the Research Study	41
Chapter 3.0: Theoretical Framework	43
Chapter 4.0: Research Methodology.....	46
4.1 Introduction.....	46
4.2 Research Philosophy	46
4.3 Research Approach	46
4.3.1 Quantitative Research	47
4.3.2 Qualitative Research	48
4.4 Research Choice.....	49
4.4.1 Mixed Methodology and Triangulation	49
4.5 Research Data Collection and Analysis	50
4.5.1. Survey Overview	50
4.5.2. Survey Design.....	51
4.5.3. Phases and Deployment	52
Chapter 5.0 Research Outcome and Results	57
5.1 Overview of Presentation.....	57
5.2 Presentation Method	57
5.3 Interview Section	57
5.3.1 Interview I.....	57
5.3.2 Interview II.....	59
5.3.3 Interview III	61
5.3.4 Interview IV	62
5.3.5 Interview V	64
5.4 Survey (Questionnaire)	65
5.4.1 Summary Question 1.....	66
5.4.2 Summary Question 2.....	67
5.4.3 Summary Question 3.....	68
Chapter 6.0 Discussion of Results	70
6.1 Qualitative Analysis.....	70
6.2 Quantitative Analysis.....	75
Conclusion	79

Recommendation	80
Recommendation for Future Work	80
References.....	81

List of Figures

Figure 1: Petal diagram of governance (Adapted from Too and Weaver, 2014).....	22
Figure 2: The PMO as a Governance System in the PBO (Michel, 2008: PMWorld)	27
Figure 3: Creswell et al., (2007) Data Mixing (Modified).....	50
Figure 4: Graph showing the weighted average of the PMO functions	75
Figure 5: Graph showing the weighted average of the PMO contributions.....	77
Figure 6: Graph showing the weighted average of the PMO structure by importance	78

List of Tables

Table 1: Seven Lists of CSF's developed in the literature (Belassi and Tukul, 1996).....	10
Table 2: The five dimensions of project success (Adapted from Turner and Serrador, 2014)	37
Table 3: Showing the questions measuring the PMOs characteristics	53
Table 4: Shows the ranking of the PMO functions by importance	66
Table 5: Shows the ranking of PMOs contribution by importance.....	67
Table 6: Shows the ranking of PMO structure by importance.....	69
Table 7: Descriptive categories by definitions.....	74
Table 8: Descriptive categories of the interviewees	74

Chapter 1.0: Introduction

1.1 Background

In this present age, most organizations have continuously to battle hard to sustain the strategic initiatives that will sustain the company's growth, the case of ABC as used in this study for confidentiality purpose was not an exception. ABC is an organization in Dubai, and its objectives which are entrenched in the business strategy of the organization is to ensure less consumption of water and electricity via public campaigns and to improve its business activities and operations through innovation. Of recent, a new project initiative set to see the organization transform its business operations into a smart operation that would enables its customers to access business information in real-time. However, the challenge faced at data center, a sub-division of the infrastructure department of the organization is hindering the development process aimed at achieving the business objectives. This is due to delay in providing project requirements and, thus, the business activities are characterized with unskilled personnel's, lack of task coordination, non-prioritization of activities, poor project management approach among others, which affects the activities of other sub-division of the departmental projects that are needed to be executed. A review on the progress of the project by the management shows that the project has not progressed the way it has been planned and the expectation of the stakeholders seem not to be actualizing. Thus, the present status of the project is delayed in time expected for the actualization of the new initiative, overrun on cost is being experienced on planned activities, the quality of completed activities was not satisfactory, and there seem to be a change in scope or an emerging scope creep characterize the project. Hence, the project is considered to be in a deplorable state. The current state of the project calls for a review which have been describe below:

1.1.1 Reasons for Project Failure

Project fail for a number of reasons. According to Cooke-Davies (2002) express that schedule delay and cost overrun on project plunge a project to failure. Furthermore, Cooke-Davies noted through the six case study that on time performance is facilitated by the followings: company knowledge on risk management, allocation of risk ownership based on maturity level of the organization, effective maintenance of risk register, efficient up-to-date risk management plans,

ensuring project's responsibilities are properly documented, maintaining the execution of project far below the usual 3 years, (completing project under 1 year is better). While noting from the on-cost performance, it was concluded from the study that allowing changes to scope should only be done through a regulated process (i.e. scope change control process), and ensure that the performance baseline is not compromised, these are key to staying within project budget. An important observation from the study also showed that project management success is not the same as project success, implying that there is a need to establish the expectations of the stakeholders and what were hoped to be achieved in the project for a project to be successful, otherwise, it could amount to a failed project. In the looks of things, it can be deduced that ABC (data-center) departmental projects has failed the organization due to the above criteria's. This is as a result of the mentioned facts such as the project were delayed, experiencing of cost overrun, poor quality of works and undue process change in scope of the project, which were the outcomes of the management review on the new initiative project for the organization.

1.1.2 Need for PMO to influence Project Success

Although a large documentation of project management advantages exist, project failure is still on the increase (Dai and Wells, 2004). An increasing call for a centralized body to coordinate effectively the activities of project has increased. Quite a number of researchers have called for a centralized body to coordinate effectively project management approach (Dinsmore, 1999; Fleming and Koppelman, 1998; and Knutson, 1998 cited by Dai and Wells 2004). According to a study carried out by (Toney and Powers, 1997) expresses that the use of PM best practices in large functional organization strengthens the need for utilizing PMOs. Contrarily, a group of previous studies adopted a survey based approaches to determine if the existence of PMO within an organization has an improved impact on the project performance. According to Dai and Wells (2004) expressed that no link existed while Martin et al., (2007) concluded that there was a weak link, associated with the presence of PMO in adherence to project budgets, but not to project timescales or improved project quality and Unger et al. (2012, p.617) found '*a strong positive and direct effect.... on single project success*'. While several other researchers expressed the need for PMO due to the increasing numbers of projects undertaken by organization and its complexity, organizations with the move to improve control, coordinate and in some cases, rationalize those

projects, have resulted to establishing project (or programme) management offices (PMOs) (Singh, et al., 2009; Artto et al., 2011; Martins and Martins, 2012).

Despite this facts, there are still some researcher's that have questioned the value of PMOs (Hoffman, 2003; Hurt and Thomas, 2009; O'Leary and Williams, 2008). The argument that lingers on PMO lies on the fact that there is a need for their impact to coordinate project to success or ensuring the management satisfaction on project success (John and Elizabeth, 2013). According to study carried out by Stanleigh (2006) reported that 75% of PMOs that were established in the IS domain failed to achieved organization intended goal, and were shut down after three years of formation. Others elaborated on the frequent changes in the forms of PMOs as a setback to project success (Aubry, et al., 2010a; 2010b). Against this backdrop, O'Leary and Williams (2008) carried out a qualitative study and found that with the introduction of project and programme management Center of Excellence (CoE) did not improve the project outcomes when standard project methodologies were used in the organization, and was noted to have been the basis of being symbolic rather than it being substantial. Further research shows that there was an improvement in the project outcome when the CoE was reconfigured to include a team of '*highly skilled, experienced project managers...to intervene directly as required in problematic project*' (John and Elizabeth, 2013). In line with the findings from other studies, it has shown that PMO is better enhance in their functionality when it comprises of highly skilled, experienced professional to revolutionize the project activities to success.

1.1.3 Justification for the Need of PMO

As a matter of fact, there are challenges in determining whether a project is successful or it being a failed one. According to Belassi and Tukel (1996) expressed that there can be ambiguity in determining the success or failure of project, and this is basically due to the unclear factors used to measure project success as a result to the different ways by which parties perceive success or failure of a project. A project considered as success by the client may not be accepted by the top management as a success because it does not meet their criteria or needs. Thus, with respect to such analysis, several researchers have come up with both theoretical and empirical studies as shown in Table 1.

Table 1: Seven Lists of CSF's developed in the literature (Belassi and Tukel, 1996)

Authors						
Martin (1976)	Locke (1984)	Cleland and King (1983)	Sayles and Chandler (1971)	Baker, Murphy and Fisher (1983)	Pinto and Slevin (1989)	Morris and Hough (1987)
Define goals	Make project commitments known	Project summary	Project manager's competence	Clear goals	Top management support	Project objectives
Select project organizational philosophy	Project authority from the top	Operational concept	Scheduling	Goal commitment of project team	Client consultation	Technical uncertainty innovation
General management support	Appoint competent project manager	Top management support	Control systems and responsibilities	On-site project manager	Personnel recruitment	Politics
Organize and delegate authority	Set up communications and procedures	Financial support	Monitoring and feedback	Adequate funding to completion	Technical tasks	Community involvement
Select project team	Set up control mechanisms (Schedules, etc)	Logistic requirements	Continuing involvement in the project	Adequate project team capability	Client acceptance	Schedule duration urgency

Continues

Martin (1976)	Locke (1984)	Cleland and King (1983)	Sayles and Chandler (1971)	Baker, Murphy and Fisher (1983)	Pinto and Slevin (1989)	Morris and Hough (1987)
Allocate sufficient resources	Progress meetings	Facility support		Accurate initial cost estimates	Monitoring and feedback	Financial contract legal problems
Provide for control and information mechanisms		Market intelligence (who is the client)		Minimum start-up difficulties	Communication	Implementation problems
Require planning and review		Project schedule		Planning and control techniques	Trouble-shooting	

		Manpower and organization	Executive development and training	Task (vs. social orientation)	Characteristics of the project team leader	
		Acquisition		Absence of bureaucracy	Power and politics	
		Information and communication channels			Environment events	
		Project review			Urgency	

The above classification by the researchers are the critical success factors which are compiled across various literatures (Pinto and Slevin, 1987 cited in Belassi and Tukel 1996). On the basis of these classifications, some researchers are of the opinion that these factors are not all exclusively the critical success factors to projects given the diversity of project, which can affect its outcomes (Belassi and Tukel, 1996). Thus, it leaves the project manager at the choice of understanding the aspects of the project that might be critical to the success of the project. However, PMOs ability to achieve project management oversight, control, support, and make alignment is of most important in this regards (Hill, 2004). Hill further clarify that the role of the PMO's is on a submission to continuously enhance the skillfulness of the project manager and recognize the objectives of the organization whether at enterprise, business unit, or departmental level in order to understand and apply professional practices of project management, as well as to adapt and integrate business interests into the project management efforts. Hence, by virtue of the review on the project status by the management of ABC, it was suggested to implement PMO at the departmental level (i.e. data-center) of the organization such that issues like unskilled personnel's, lack of task coordination, non- prioritization of activities, poor project management approach among others would be properly addressed.

As a concerned member of the organization, the researcher took it upon herself to investigate the characteristics of PMO through the lens of governance as the main root of the problem. This brought about the detailed examination on project and the value of PMO within organizations to enable the proper recommendations and implementation of the PMO.

1.2 What is project?

An early definition of project by Kerzner (1989) stated that project consist of series of activities and tasks in which resources are used to achieve a specific objective that meets certain specifications within a definite start and end dates. Alternatively, the word project was defined as a temporary endeavor embarked upon to deliver a set of objectives that will produce results (Cardinal and Marle, 2006). In a practical term, project has been taken as an agent for change in so many sphere of life; for instance, in companies, market and society (Andersen et al. 1987; Turner 1990 cited in Turner and Muller 2003). On a general note, a project is said to consists of a start date, involves progression and a finish date that results to the outcomes of the project producing a performance improvement, better product offers, enhance communication and much more (Cardinal and Marle, 2006). Although, there has been some universal phenomenon that treat projects as being similar to one another, however, of recent several research have questioned such notion (Engwall 2003). In order to understand the composition of project, Turner (2009) described project as an endeavor that involves the participation/usage of human, materials and financial resources, to undertake a unique scope of work which entails the execution of a given specification, within constraints of cost and time, such that beneficial change can be achieved, quantitatively and qualitatively in nature. Moreover, the initiation of projects is aimed at solving tasks, and to embark on work assignments of various magnitudes, in almost any type of business (Maylor, 2001). As such, projects can be linked to the three main features identified by (Turner, 1999) as follows: similar but unique; uses a novel process; and possesses transient nature While, several classifications have emerged on the different nature of projects but have so far presented limited theoretical impact (Engwall, 2003). However, the comparative studies have challenged the universal approach which deals with treating projects as fundamentally similar to each other. Such comparative studies use different types of empirical research such as research and development (R&D) projects and construction projects (Pinto and Covin, 1989), projects of varying technological uncertainty and level of system scope (Shenhar and Dvir, 1996) or projects of different size (Shenhar, 2001), or different proportions of hardware and software (Dvir et al., 1998). The findings from those research showed that “project management has a wide range of variations and projects have less characteristics in common than previously considered” (op. cit., 931). Hence, there has been a consensus that there require a more diverse picture where projects can be successfully managed on the basis of the project content (Engwall, 2003). Consequently,

the use of methods and tools plays a very important role in managing project to success under its specific context.

1.3 What is project management?

Project management has been defined as the process of controlling the achievement of the project objectives (Munns and Bjeirmi 1996). Within the original organization structure and resources, project management apply the tools and technique to control and manage project, without adversely disturbing the routine operation of the company (Kerzner, 1989 cited by Munns and Bjeirmi 1996). Managing projects to achieve economic goal is of great importance and its value have grown tremendously across different sectors, industries and countries (Turner et al., 2010; Winter et al., 2006c). Although this terminology has been viewed in different perspective, its underlying objective is to ensure project success. According to Jugdev et al. (2001) described project management as a set of tools and technology used to achieve project efficiencies. Though, the growing appetite for knowledge on managing project to success have looked beyond project management as merely a tool and technology, and as of today, different taxonomies of project management research approaches and project management paradigms exist today to explain those attributes. (Smyth and Morris, 2007; Pollack, 2007). However, the description of project management in the book is much lenient than it used to be in the practical sense of it (Pollack, 2007; Remington and Pollack, 2007; Winter et al., 2006). It suffices to say that tools are used to describe the larger part of the processes and techniques involve in its study, which essentially forms the structure of project management (PMI, 2008). The application of tools is applicable in two ways; its action of study and the usage of the tools in the practical nature. This is important to note as project management school explains the tools in certain ways and has to be applied in the way it ought to be used (Klein et al. 2015).

In order to emphasize project management functions, it was referred to as the coordination of work needed for a project such that the organizational objectives can be achieved while ensuring that the economy goals such as time, budget, and quality standards are met (Baar, 2002). The importance of these factors in project success have make many academic and practitioners to recognize in their publications the often occurrence of cost overrun and late delivery of project and the necessity to acquire a strong-skilled project management knowledge. In this instance, a long

time professional body of knowledge, PMI (Project Management Institute) defines project management as *“the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project.”* (PMI, 2004, p. 6). Other renowned researchers paid their attention strongly about people-centred issues and the organizational context in which the project is to be executed when describing project management (Boddy, 2002; Lechler, 2000). Several efforts has been made to incorporate the use of tools, techniques and people orientation into the management of project, such instances were occasionally used by adopting initiatives of business administration discipline with a longer academic history to successively manage project. Examples of which can be seen in area of controlling; strategic management such as balanced scorecard (Schneider, 2001) which gives an interpretation that portray project as a ‘mini-organizations that require the same clarification and benchmarks of the parent organization’ (Aubry, et al., 2007).

1.4 How are projects implemented?

1.4.1 How? – Project Implementation

According to Cardinal and Marle, (2006) described project as a temporary endeavor which are set up to fulfil certain objectives or to deliver a result. The process involves in actualizing a project is called a project lifecycle, and this can be explained in different ways (Cardinal and Marle, 2006). In PMI (2004), this process involves: initiating, planning, executing, controlling, and closing. The planning process is an embodiment of identification, estimation and preparation of activities which will be needed at the execution stage in order to achieve the objectives and ensure the result is being delivered (Cardinal and Marle, 2006). The transformation from initiation to closing of the project is regarded as the project structure, and its project schedule could range from a year to three years but are dependent on the characteristics of the project i.e. size, complexity or uncertainty (Duncan and Gorsha, 1983).

1.4.2 Why? - Project Implementation

Projects are basically one of the most important characteristics contemporary issue in an organization (Clegg, 1990; Ekstedt et al., 1999). This is important to solve tasks and work assignments in various size, in almost any type of business (Maylor, 2001). This has be entrenched in the western economies and perhaps heading in the direction of a “projectified society” (Lundin

and Soderholm, 1998). The execution of project within a large organizational setting is nothing new to the scholars of innovation (Allen, 1977). Projects are used to achieve an organizational goal (Maylor 2001). The implementation of project and the utilization of project team assume there is an increasingly improvement in performance in an organizational activity, thus, creating a deep awareness and the social need to fulfill the operational dynamics needed in an organizational goal. This is even of most important in desirable projects embarked upon in an organization which involves structurally complex, uncertain and heavily time-limited (Williams, 2005). The positive outcomes of these engagement increases the optimization in projects and to maximize the potential organizational benefits that can be derived from them. Sense and Fernando (2010) cited that through better understanding the social learning dynamics within a project setting, it enables the development and deployment of strategies which are acquired through learning on the job by the participants. Actualizing this, improve the immediate project outcomes and the competency level of the project participants (Sense and Fernando 2010). Furthermore, Sense and Fernando (2010) noted that knowledge transfer across organization may also be imminent via the new learning skills by the participant into other organization setting. Worthy of note is the strategic part played as a result of the improve project dynamics which helps to determine the passionate commitment of the participants to stimulate them to action (Sense and Fernando, 2010). Such knowledge would be more useful in helping to create and enact appropriate leadership strategies to more effectively and managerially address project social phenomena (Sense and Fernando, 2010).

1.4.3 When to Project Implementation

Project is a transformational process that can go from the initial to an expected concluding stage i.e. Final stage, but may often evolve in a complex and changing environment (Cardinal and Marle, 2006). To execute a project, the initiation is composed in the company's corporate strategy, the historical information, standards specific to the organization, initial resources available, and the expected constraints and assumptions (Cardinal and Marle, 2006). Moreover, it was noted that the aim of the final goal explains the objectives intended to be achieve in the project. Thus, the project objectives result from the corporate strategy and may be result of responding to a constraint (legal, social, ecological) or an opportunity/risk which can manifest from technological or financial gain (Cardinal and Marle, 2006). In other cases, it can also be as result of expressing customer requirements analysis for product development. In this case, to develop a new product for instance,

it is expected to begin the project by defining the expectation, functional requirements and the expected delivery time and the budget (Cardinal and Marle, 2006).

1.4.4 Who? – Project Implementation

The project manager work to achieve the reality of the objectives presented for the project (Chia, 1995). When project is being defined as a temporary endeavor for an organization, project manager represents the chief executive of the temporary organization (Turner and Muller, 2003). The project environment is enclosed with the stakeholders having a stake in the entire project lifecycle. The project manager (PM) is assign to implement the project. The PM engage the organizational members to achieve an important cooperative or societal activity, cope, and manage all stakeholders with ambiguous goals and equivocal performance criteria (Cardinal and Marle, 2006). In the process, PM continue to negotiate the direction, plan, think on the feet and understand the social and political context in which they work (Pellegrinelli, 2011). During the project planning, the project manager is expected to establish a monitoring methodology for the project progress (Cardinal and Marle, 2006). This can be achieved through weekly and monthly reports, while other can as well use the work breakdown structure (WBS) that provides the structure of the subcontract of which the budget and schedule are clearly allocated to respective project team members but are presented to the stakeholder's for review (Guncan and Gorsha, 1983 cited by Cardinal and Marle, 2006). It is in this sense that Scott (1995) quoted Barnard (1938) on the role of PM said the executive's role goes beyond the management, administration or supervision, but to ensure that the organization has a purposeful direction. The establishment of a sound purpose demands a sound communication network, experience, imagination, interpretation and delegation of responsibility. While the PM has great control on the project, nevertheless, the project can be modified or stopped by the influence of one of the stakeholder (Cardinal and Marle, 2006). The stakeholders could comprise of executive management, project sponsors, program director, steering committee and executive committee. This can be as a result of non-periodical receiving of reports or conflict with stakeholder's objective (Cardinal and Marle, 2006). Further argument, suggested that the nine knowledge areas of project management are valuable tools for PM to deal with the unknown but does not suffice for PM to follow the teaching blindly. It is acclaimed that those theories represent a good context-dependent practices but may not necessarily solve the all challenges being encounter by the PM (Clegg and Pitsis, 2012; Dehlin, 2012; Flyvbjerg, 2006).

1.5 Why do Projects Fail or Succeed?

Project consists of project lifecycle which has been described in several ways, amongst these descriptions given to project lifecycle is that given by PMI processes: initiation, planning, executing and controlling, closing (PMI, 2004). Project lifecycle are the stages/processes needed to achieve a goal (PMI, 2008). The success or failure of a project lies in the effective/ineffective ways by which these processes are dealt with (PMI 2008). For instance, it is essential to identify, estimate and prepare the whole activities to enable the execution to deliver the stated objectives of the project. An efficient use of these parameters is the outcome of a project plan, where project is structured, deliverables are defined, activities, resources, estimate on time, cost and quality are all its components (PMI, 2004). In Cardinal and Marle, (2006) study revealed that one of the survey carried out by Standish Group International in 2000 identified that 80% of project successes or failures may be linked to planning, which may result from one or more combinations of the followings: bad scope definition, bad stakeholder analysis, bad activity decomposition and bad resource assignment. It was further noted that as important this planning process is, it isn't without its challenges, as the future cannot be predicted but can only be forecasted and estimated. However, it is emphasized that failing to plan is presume as planning to fail, even under the influence of complexity, uncertainty and changing circumstance that may exist. Nevertheless, many researchers have pointer to the fact that project success largely depends in the ability to identify the needs of the stakeholders and ensuring that their specifications are define (Caupin et al., 2006). This has called for proper project definitions, according Crawford et al. (2006), definition marks the first stage of the project lifecycle, as such, its' approval that leads to further development of the plan, plays an important aspect for the start of the project. A professional body of knowledge PMI (2004) describes project definition as basically included in the initiation process group with its use in the development of the project charter, Project Statement of work, and also, the Preliminary Project Scope Statement. As a result, Kankonen, (1999) concluded that a significant aspect of project success or failure is the project definition, in which if poorly define, its end result will not satisfy the expectations of the stakeholders.

1.6 Project Governance

Several of the definitions given to project governance has showed that there is still no common understood and generalized version of the definition (Bekker, 2014; Bernardo 2014). Many of which have been seen to be pointing in the directions of researchers' and authors' industry of application, type of projects, their understanding of the meaning of governance, the type of organization and the functional positioning of projects in various organizations (Bekker, 2014). In the study by Ahola et al (2014) considered that project governance can vary from very narrow to very broad. For instance, an economics-based perspective was adopted by Turner and Simister (2001) referring to it simply as a contract type used in the project. Whereas, Ruuska et al. (2009) viewed project governance as a principle used to respond to project stakeholder's demands, documentation procedures, communication and contractual arrangements. Olsen et al. (2005) described project governance as a rigid principle used for coordinating and protecting the interactions between firms during project interactions. Other researchers describe project governance as a continuous managerial decision-making process (Abednego and Ogunlana, 2006; APM 2004 cited by Ahola et al., 2014). According to Project Management Institute (PMI) defines project governance as *“an oversight function that is aligned with the organization's governance model and that encompasses the project life-cycle (by providing) a comprehensive, consistent method of controlling the project and ensuring its success by defining and documenting and communicating reliable, repeatable project practices”* (PMI, 2013a, p.34).

1.6.1 What is governance?

The term governance is fundamentally linked to accountability and responsibilities; essentially describes how an organization can be directed and controlled and focus more on the organizational structure, management and policies (OGC, 2008c). In reference to Oxford dictionary (Oxford 2005) defines governance as *“the activity of governing a country or controlling a company or an organization; the way in which a country is governed or a company or institution is controlled”*. Re-conceptualizing the definition of governance by UNDP (1997) defines governance as “the exercise of political, economic, and administrative authority to manage a nation's affairs. Further explanation shows it is a complex mechanism, processes, relationships and institution through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences” (cited in UN, 2007). Although governance as a word is derived as having

an associate links with the likes of government, governing and control (Blakeegg, et al., 2008), but its context in an organization is a framework that provides an ethical bases for decision-making and the managerial action needed in organization with a foundation that is built on transparency, accountability, and defined roles (Muller, 2009).

1.6.1.1 From Political Sociology

Governance from the perspective of political sociology is drawn on the fact that naturalist in social or political order may not really exist but exist only on a basis of temporary islands of order occurring in the midst of disorder and are formed on different situation in time and space (Bang, 2000). Notably, from the point of view of political theory, governance helps to make it recognize that there is no opposition of freedom and equality, or individual and commonality, since democracy can hardly exist without the acceptance and recognition of differences (Bang, et al., 2000). However, governance differs from this view and see it as a hierarchical and uniform sovereign entity. It is noted that political authority is entrench to discharge a communicative leadership that disseminate or give decisions for a given field, terrain or group of people. According to Easton (1953), express that this kind of communication can be hierarchical or bureaucratic in form, but it can also be negotiated and dialogical. The fact remains that such communication message must be accepted and considered binding on those it is explicitly addressing.

1.6.1.2 From a Public Admin Perspective

The effectiveness and efficiency of public administration promotes on a good governance and strengthens democracy (Cheema, 2005). Further, Cheema explained that there has been a tremendous transformation in the public administration in four phases over the past 50 years. At first, from a historical perspective, the public administration was viewed to be part of the state structures, institution and processes (UN, 2003). Basically, it was characterized by various factors including hierarchy, continuity, impartiality, standardization, legal-rational authority, and professionalism (UN, 2003 cited in Cheema, 2005). But then, in the 1970s, the practical application of traditional public administration was largely criticized due to slowness in response, paternalism, waste of resources, focusing much on processes and procedure rather than on the result to be obtain (UN, 2003).

The second phase which included the public management, focused on applying management principles such as resources utilization, orientation of the customers, enhancing effectiveness, reliance on the market forces and paying high attention to public needs (Cheema, 2005). That has called for an expansion of the private sector and correspondingly, minimizing the size of the public sector and the domain of traditional public administration (Cheema, 2005). Using the private sector principles in the public sector organizations. New Public Management (NPM) was the third phase, the trend continues. It is result oriented partnerships between the public and the private sector to provide services to citizens (Cheema, 2005). Fundamentally rely on the following principles: (1) managers have flexibility to enable them to cope with the national and global environment; (2) citizens were empowered to promote more efficient, entrepreneurial, and goal reaching management (3) new responsibility mechanisms to encourage innovations and results over process; (4) introducing business principles into public affairs including out-sourcing and contracting out; (5) promoting professional ethics in the public sphere; and (6) performance management and budgeting (UN, 2001). In the fourth phase, Governance was defined as a value producing system that promotes policies, and it is institutions by which a society manages its economic, social, and political affairs through interactions within and among the state, civil society and private sector (UN, 2003). It forms the basis for which citizens and group show their interest and try to find a common ground for their differences, and exercise their legal rights and obligations. It is the rules, institutions, and practices that set limits and provide incentives for individuals, organizations and firms (UNDP, 2000). Governance is basically involved by three parties: The State, this provides the political setting and legal environment; the private sector, which generates jobs and income; and civil society, which facilitates social and political interaction. In these three situation, governance function is to creates the avenue where the three can promote a people-centered development..

1.6.1.3 From a Management Perspective

Management has in common with governance a hierarchal system where people of highly place in the organization delegate authority and responsibility to the lower people below the hierarchy while ensuring that surveillance and assurance processes makes such duties are carried out to letter (Too and Weaver, 2014). This places emphasis on the issue of delegation and it is being viewed as a key principle in managing governance. The host organization board remains the sole entity

that is responsible for accountability, design of governance system and the management system for monitoring of the performance (Too and Weaver, 2014). This implies the responsibility of the board is to ensure that the management is handled by competent people to set the right organization's management structure and ensuring the delegation of authority is decided by competent manager. In this regards, APM (2011) acclaims that organization that intends to focus on developing and implementing system with a projects and programs which are selected and funded rightly, will be done more efficiently. Above all, governance is not management, which implies a various in their functions (Letza et al., 2004, Shleifer and Vishny, 1997). Notably, governance system set the strategy and judicious use of resources, but the ultimate success lies in the competency of the people managing the organization's management system (Too and Weaver, 2014).

1.6.2 Forms of Governance

There are two school of thought about governance (Too and Weaver, 2014). The first school of thought on the basis of literature postulated that there are different types of governance that are needed at different sub-units of an organization. These includes IT governance (Marnewick and Labuschagne, 2011; Martin and Gregor, 2006; Sharma et al., 2009); knowledge governance (Ghosh et al., 2012; Pemsel and Muller, 2012); network governance (Klijn, 2008; Sorensen, 2002); public governance (Du and Yin, 2010; Klakegg et al., 2008; Williams et al., 2010) and project governance (Abednego and Ogunlana, 2006; Miller and Hobbs, 2005; Winch, 2001). It was concluded that this perspective on governance appeared to have been developed by Managers in the field of IT, project, officials within government departments, and the academics working in close relation with this disciplines. Their views were based on the fact that governance is a function of management or a body that is responsible in decision making and/or controls the activities within an organization or projects (Too and Weaver, 2014). Too and Weaver emphasized that each governance practices is an independent entity that operates irrespective of the other and there is no integrated of theory of practice. The second school of thought was developed by organizations such as OECD (OECD, 2004), institutes of Directors (e.g. Australian Institute of Company Directors, 2010; Institute of Directors Southern Africa, 2009) and agencies in charge of governing stock exchanges. It was postulated by this bodies that governance is a single process having different facets as shown in Figure 1.

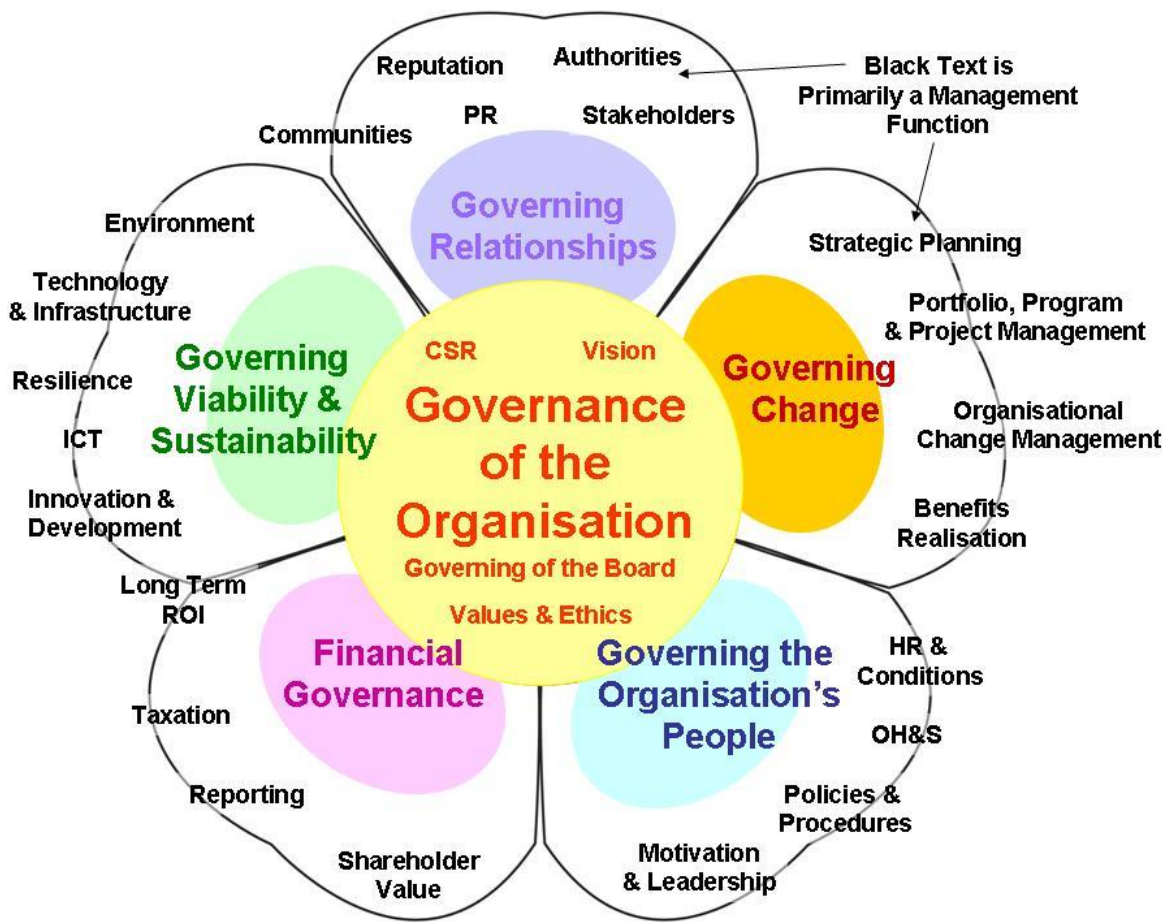


Figure 1: Petal diagram of governance (Adapted from Too and Weaver, 2014)

The development of Figure was cumulated from different sources, but adapted from (Too and Weaver, 2014). The diagram is represented using 'petals', and it describes the different functions of governing within the organization through a five channels themes: governing relationships, governing change, governing the organization's people, financial governance, viability and sustainability. Corporate social responsibility (CSR) is the center of this form of governance as it reveals the vision, values and ethics and the 'board' governing it. Each 'petal' focuses on specific knowledge area and it is not a representation of governing board exclusively. It is operated on the function of the core principles which are strengthened by capabilities, knowledge and skills.

1.6.2.1 Corporate Governance

Corporate governance as summarized by Sir Adrian Cadbury and his committee in producing the Cadbury Report (1992p.14) define “*Corporate governance is the system by which companies are directed and controlled. Boards of directors are responsible for the governance of their companies. The shareholders’ role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place. The responsibilities of the board include setting the company’s strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship*”. According to OECD (2004 p.11) describe corporate governance has a set of relationships between a company’s management, its board, its shareholders and other stakeholders. It provides the platform for which the objectives and monitoring performance are determined. The provision of incentives for board and management to ensure set objectives of the company are effectively monitored by the board and shareholder opens up for good corporate governance (OECD 2004 cited in Too and Weaver, 2014). In line with these definitions, the differences between management and governance explains the phenomenon where the governance system creates the organizational structure, where required right are allocated and delegation of responsibilities are effectively distributed for the management to manage the organization with the framework that was provided by the governance system (Too and Weaver, 2014). Corporate governance “...consists of the concepts, practices, procedures, expectations, legal requirements and traditions used by the leadership of organizations, the boards and individuals charged with organization oversight and management.” (Sorokin, et al., 2011).

1.6.2.2 Agency theory

Agency theory is one of the most important theory of examining corporate governance in strategic management research (Dalton et al., 2007; Eisenhardt, 1989) despite this fact, there have been quite a number of criticisms towards it over its applicability in so many years back (e.g. Hirsch et al., 1987; Nilakant and Rao, 1994; Nyberg et al., 2010). Due to this, several ongoing research has always spring up in its affirmation (e.g. Cuevas-Rodriguez et al., 2012; Lan and Heracleous, 2010; Pepper and Gore, 2012; Wiseman et al., 2012). Basically, agency theory is rooted on economic utilitarianism (Ross, 1973), this adopts opportunisms, self-interestedness and individuals pursuing self-motivated goals as the basis that define individual characteristics (Cohen and Holder-Webb,

2006; Lubatkin, 2005). Practically, this theory uses an agency relationship usually between a principal and an agent with the principal contracting the agent to perform some services on its behalf and delegating some decision making authority to the agent in the process (Jensen and Meckling, 1976), which enables the action taken by the agent to impact directly on his own well-being. Problem associated with agency arises when the principal has a divergent interest and risk preferences, with respect to monitoring the behavior of the agent, thus, where the opportunity to act with his own self-interest in mind goes against that of the principal objectives (Eisenhardt, 1989, Ross, 1973). This risk ability can be likened in the case of project management where the owner or project management invest resources over a number of projects, whereas the project teams are unable to utilize this investment judiciously and guide the risk or ill fortunes on a singular employment relationship (Fama, 1980 cited in Toivonen and Toivonen 2014).

It is important to note that interest conflict is inherent in the agency theory as a result information asymmetry between the two parties (i.e. principal and the agent) as noted by (Toivonen and Toivonen 2014). In this case, the principal has less information to flourish the capability, skill and competency of the agent to perform the work as required, leaving the principal to a less information which is disadvantageous to monitoring the behavior of the agent (Eisenhardt, 1989; Sharma, 1997). This is taken has a moral hazard and adverse selection, as the behavior of the agent is not verifiable and possibly the agent is not expending its full efforts necessary to fulfil the contractual agreement (Eisenhardt, 1989). However, in the bid to resolve or lessen the risk of agency problem, the principal has two broad categories of governance mechanism at its disposal. In the first case, is to use a contractual incentive to guide the behavior and align agent interest to the organization goal (Cuevas-Rodriguez et al., 2012). The second instance is to reply on information system to monitor the behavior of the agent, in order to ensure the information asymmetry is bridged (Mahaney and Lederer, 2011). Understanding this remedial governance mechanism brings about a performance measurement which is based on the outcomes of the agent by designing a rewarding system to measure the outcomes of the agent's behavior as opposed to non-incentivized contracts that does not reward the agent and align the agent interest to the organization (Selviaridis and Norrman, 2014; Zsdisin and Ellram, 2003). In the other case, the remedial governance mechanism employ utilizes information systems via an establishment of rules and procedure, such as status report, budgeting and financial systems, and performance reviews, and monitoring the agent's behavior on this criteria (Eisenhardt, 1989; Zsdisin and Ellram, 2003). Hence, the resulting

outcome generates a governance mechanism that control and monitors the activities of the agent based on set measures and it is optimal when the activities of the agent is reliably measurable (Eisenhardt, 1985 cited in Toivonen and Toivonen 2014).

1.6.3 Governance in the context of projects

Governance defines project objectives, required resources acquisitions, and the monitoring system on the progress of the project. Thus, governance makes the viability of project possible and steers it along the project life cycle (Muller, 2009; Turner, 2009). The governance of project has been addressed by researcher from different perspectives and has thus paved ways for different governance approach. Governance in the context of projects takes place at different levels on the basis of individual projects and groups of projects. The governance of individual project is often called project governance (Muller and Lecoeuvre 2014), referring to “the use of systems, structures of authority and processes to allocate resources and coordinate or control activity in a project” (Pinto, 2014, p.8), whereas the collection of projects which is referred to as program or portfolio of projects and are operated within the organization under the corporate or board level perspective are called Governance of Project (GoP). This form governance takes a broader view as compared to the individual project. In this sense, the GoP is believe to be entrenched in the corporate governance framework i.e. where all activity is steered, and “*comprises the value system, responsibilities, processes and policies that allow projects to achieve organizational objectives and foster implementation that is in the best interest of all the stakeholders, internal and external, and the corporation itself*” (Muller, 2009, p.4 cited in Muller and Lecoeuvre, 2014). Conceptualizing governance in the view of project is seen as a relationship between the governance and management domain (Too and Weaver, 2014), but “*the governance system defines the structures used by the organization, allocates rights and responsibilities within those structures and requires assurance that management is operating effectively and properly within the defined structures. The role of management is to manage the organization within the framework defined by the governance system; this applies particularly to the governance and management of projects.*” (Too and Weaver 2014 p4, cited by Muller and Lecoeuvre, 2014).

1.6.4 The PMO as a form of Governance

PMOs are essential an important aspect to consider in establishing a good governance, which is basically linked in the chain to achieving effective corporate governance. Notably, every PMO should have a structure with a defined function within the organization to create support, stabilize the growth through the maturity of the organization, and commitment of senior management. However, regardless of this structure, an effective PMO is been viewed from the perspective of governance by (Bourne, 2006) to possess a number of key capability as follows: Support by the PMO should cut across the three levels: project, program and portfolio and ensure that their objectives are strategically aligned to the overall organization objectives. This can be provided through monitoring (i.e. control), methodology (i.e. infrastructure support and resource management) and mentoring (PM training and career development). The skill to manage the relationship of the senior management and enhance effective communication is needed by PMO to engage strategically the three levels, organization executives and the project/program management and teams. Observing the PMO from this perspective will be in line with the strategic view as explained in OECD definition on governance. According to OECD (2004) stated that *“governance provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.”* Several models have been design in line with this perspective, an example is the EFQM Business Excellence Model that was introduced in 1992, and so far had a far reaching effect across Europe and the world. The concept of the model focused on *“The Results’ criteria cover what an organization achieves. ‘Results’ are generated through ‘Enablers’ and ‘Enablers’ are improved using feedback from ‘Result’*” (Michel, 2008) as shown in Figure 2.

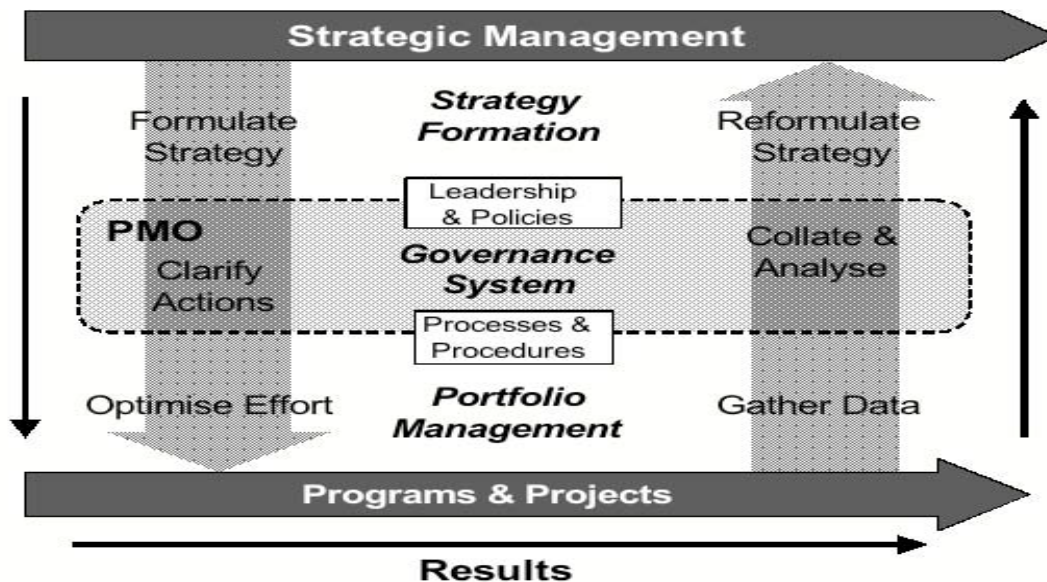


Figure 2: The PMO as a Governance System in the PBO (Michel, 2008: PMWorld)

1.7 The role of the PMO in project failure

A long time call by practitioners have called for a better ways of controlling project activities through the establishment of project management office (PMO)(Dinsmore, 1996; Knutson, 1994; PMOs; “Project Management Offices Grows in Popularity”, 2012; Kutsch et al., 2015 citing Andersen, et al 2007). A project management office (PMO) is regarded as a centralized level that controls the activities of projects between senior management and the project management (Pellegrinelli and Garagna 2009; Li and Yetton, 2007). An essential function of the PMO is to ensure that there is consistency in approach across projects (Hill, 2004). In order to achieve this aim, PMO establishes project management methods and procedures, which are used to define and are being implemented in structuring the activities in projects, using tools, automating the project management systems, and institutes project management training and education (Bates, 1998).

In line with this, PMO helps to ensure the formalization of project selection, improve project management approach, enhance better coordination of multiple projects, increase the project performance with respect to cost, schedule, scope and people, and also, in organizational profitability (Rad, 2001). Although, as much as practitioner journals (Hill 2004; Pellegrinelli and Garagna 2009) have stressed the importance and usefulness of the PMO, the challenges still lingers among academic researchers to establish the link between PMO and the use of specific project management practices or project performance (Unger et al., 2012). This has always been

emphasized in the area of project sizes, types, or complexity, while such claims has been linked to highly divergent nature of PMO functions (Aubry et al., 2010). Furthermore, other researcher suggested that if the dominant project management model is entrenched and yet failed as posed by some commentators (e.g. Williams, 2005; Hodgson and Cicmil, 2006), then it worthwhile to accept and use the alternative model in the management of project that would allow for greater flexibility and choice. Consequently, the lack of consensus on the functions of PMO have had impact in the project failure (Kutsch et al. 2015 citing Dai and Wells 2004; Li and Yetton 2007; Ward and Daniel 2013). An outcome of a survey of 500 PMOs documented that there are large variety and lack of consensus on the value of PMOs, its structure, and functions that are included in their mandates (Hobbs and Aubry, 2007). Thus, the large variety of options to establish the PMO between the organizational structures and the functions to put in their mandate has been challenging to the people responsible for PMO. Moreover, executives ask for value governing the structure of PMO but it has been hard for PMO managers to often show value for money. Of course, it is on this basis the community of practitioners seek to establish a standards or guideline to enhance them and the executives in managing successively the PMO to project success (Aubry et al., 2010).

1.8 The role of the PMO in project success.

PMO has a large role to play in project success as revealed in various research outcomes (Hill 2004). First, the definition of PMO is categorized into two forms (Hill, 2004): as an organizational body created with the responsibilities to manage a specific project, or relating projects, usually headed by a project manager; also, it is referred to an organizational body established to assist project manager(s) and teams throughout the organization in implementing project management principles, practices, methodologies, tools, and techniques (Ward, 2000). According to PMI definitions, PMO is *‘an organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain’* (PMI, 2004, p. 369). Considering all these definitions, PMO is a body that is saddle with the responsibility to manage the organizational project activities (Aubry et al., 2008). Secondly, somehow use of PMO dating back to 1930 has been reported (Dai, 2001). Its success on projects has been commended in sectors such as telecom, aerospace, and defense industries for quite some time (Desouza and Evaristo, 2006). Of recent, a wide spread interest has sparked the need to establish PMO as a means of improving IT project performance and abate failures experienced on projects (Dai, 2001, p. 5).

The challenges lie in implementing PMO but not only its implementation but a PMO that work to achieve the strategic objectives of the organization. However large the challenges might be, several studies have shown its success on projects including The Hackett Group study that revealed that world-class IT organizations which operate at 15 percent lower costs and at higher effectiveness levels over the typical companies, depend largely on the PMOs to produce project success. In addition, Pulse, study found out that 78 percent of high performing organizations with PMO have over 80 percent of their projects emerging as a successive, compared to 67 percent of low-performing organizations, with less than 60 percent of their projects resulting to success. Hence, it is on this basis that the study seeks to explore the role of project governance (PMO) in project success and failure.

1.9 What is a PMO?

The complexity involves in managing, controlling and coordinating the increasing multitude of projects is the key rational behind organizations establishing project (or programme) management offices (PMOs) (Singh et al., 2009; Artto et al., 2011; Martins and Martins, 2012 cited in Ward and Daniel 2013). Project Management Office (PMO) was define as the center of intelligence and coordination which relates the strategic business directions and the goal intended for the organization through its identification of organizational portfolio, program and project management (Kendall and Rollins, 2003). According to the PMBOK guide, PMO is a management structure that is built on the governance process/structure of the organization so that standardization can be achieve to enable proper sharing of resources, methodologies, tools, and techniques (PMI, 2008). PMO coordinates the processes that are involve in the project management methods, as well as, those including programs or the combination of project and programs called portfolio management (Ward and Daniel 2013). While there has been continuous increase in the establishment of PMO (Hobbs and Aubry 2007; Hobbs et al., 2008; Spelta and Albertin 2012 cited in Ward and Daniel 2013) with the notion that their approach to project is an effective way to handle complexity of projects, others have questioned the value of PMOs (Hoffman 2003; Hurt and Thomas 2009; O'Leary and Williams 2008 cited in Ward and Daniel 2013). With the understanding of the fact that PMO varies widely on the basis of size, structure, and accountability makes universal definition of PMO difficult task to achieve (Desouza and Evaristo, 2006), however, PMO criterion of success is based on the capability of PMO structure

to align to the organization's corporate culture and improving teams to improve on their performance (Desouza and Evaristo, 2006).

PMO functions can run through continuous providing support to project management processes including training, software development and use, standards and procedures, up to actual direct management and responsibility for achieving the project objectives, the real execution of the project management (PMI, 2004). However, there are some survey-based research of PMO which describe the PMO within their organizational contexts as a body with extreme variety based on both the form and function (Hobbs, and Aubry, 2007). Furthermore, Hobbs and Aubry continued that attempts to bring this extreme variety to date has failed. Many of the reasons attached to this has been on the unstable structures, reconfigurations of PMO by their organizations every few years. Thus, the instability is attributed to the structuring that forms an ongoing organizational process (Pettigrew, 2003) and also included the experimentation going on in the organization in search of an adequate structural arrangement (Midler, 1994).

1.9.1 History of the PMO

The knowledge about PMO started from academic reference such as book and papers. It however gains its recognition in the year 2003, when Harold Kerzner wrote the preface of Gerald Kendall and Steve Rollins book. This year marked a great milestone in the history of PMO. Although, there has been traces of its appearance in some congress papers earlier than 2003 (Gerald and Rollins, 2003). Over the past fifteen years, various names associated to PMO have surface, such as, PO – Project Office, PSO – Project Support Office and PMCoE – Project Management – Center of Excellence. The creation of PMCoE is identified today by Luis Menezes (2001) as one type of PMO but was first created in 1995, by Promon Engineering Ltd, a major engineering company in Brazil. The Project Support Office (PSO) of Star Alliance was created in 1997. This type of PMO came to being through the alliance of huge aviation joint operation of some airline companies, such as, United Airlines, Lufthansa, Air Canada, and others. Rio de Janeiro Chapter of PMI was pioneer in 1999: It included within the organization by law the structure named Steering Committee. This committee provides role including support, to the PMI Rio de Janeiro Chapter Board of Directors in the strategic planning. Also, such support was extended to the Board of Directors in the planning and control of activities and are embedded in the standards and templates of PM processes. After ten years of existence of PMO, it became obvious that those roles were

typical roles played by PMO. Thus, the Steering Committee is the PMO of the RJ Chapter that came into being under the bylaw of Rio de Janeiro in 1999 with a name Steering Committee. According to Jose Valle (2001) presented in Brasilia –DF Brazil, at the 3rd PMI –DF Seminar on Project Management, at PMI – DF Chapter (Brasilia –DF- Brazil 2001). Virtual Project Management Office named was presented and activities known as project control through internet called VPMO –virtual PMO (VPMO (2001). Harold Kerzner (1998) registered the first known bibliography of PMO. This was in the sixth edition of the best seller book – Project Management – a Systems Approach to Planning, Scheduling and Controlling, which was edited in 1998. In this edition a section that describe what was called Project Office (PO). It also included the organization chart and diagram with a proposal for structuring the PO (PMO). The book refers to PMO as PO, and stands as a possible name. PMO begins its recognition after the year 2003. Before then Harold Kerzner wrote the preface of the book written by Gerald Kendall and Steve Rollins, titled: The Use of PMO is Not New, but the Use of PMO as a Direct Input to the Strategic Planning Process is Really New. Up to 2003, there are very limited literatures on PMO, while rare papers that has PMO are limited to superficial comments on critical topics. Major history has been linked to far back 1930 (Dai, 2001), while many of its associated success have been limited mainly to area such as:telecom, aerospace, and defense industries for a long time (Desouza and Evaristo, 2006).

1.9.2 Types/Forms of PMO

There are various types of PMO that exist and can function on the basis for which it has been created. The following are forms of PMO as classified by Kendall and Rollins (2003).

- a) Strategic Project Office (SPO):
- b) Directive – PMO
- c) Project Support Office (PSO)
- d) Hybrid

1.9.1.1 Strategic Project Office (SPO)

SPO is concerned with the provision of high level support the management at a strategic planning. This form of PMO classification ensures that PMO members are adequately trained such that relevant role in implementing and developing strategic processes within the organization is

achieved which includes short, medium and long term activities. For many organizations, the project and program are grouped as portfolio which form the strategic objectives to be accomplished by the organization. Knowledge based support are delivered in form of portfolio management but are built up from the coordination of projects and programs management, in line with the Standard for Portfolio Management (PMI, 2004).

1.9.1.2 Directive PMO

This form of PMOs actually handles the entire project via initiating its control and managing it directly. Such control is usually high in this form, and it provides the guidelines, standards and templates to apply the best PM practices, tools, techniques and software in PM Processes.

1.9.1.3 Supportive PMO

In this type of PMOs, their role is based on consultative by supplying templates, best practices, trainings, information and lessons learned from other projects to the current projects. It serves as a repository to enhance the performance of other projects. However, the level of their control in this form is relative low.

1.9.1.4 Hybrid PMO

This is a combination of two or more of other forms of PMO. This can be applied by combining two or more PMO forms functions to achieve a set goal. This will ensure that the characteristics to deliver projects, programs or portfolio deliverables are embedded within the objective of the set-up PMO.

1.9.3 Advantages of PMO

The PMO plays a large role in ensuring that the overall projects of the organization are effectively and efficiently managed. While the project manager is responsible for each project they are assigned to, the PMO sees to the overall company projects (Soares, et al., 2008). This implies that the PMO operates at high management level to ensure that the corporate governance procedures are adequately implemented (Soares, et al., 2008). Furthermore, Soares explains that PMO transforms strategy to success by achieving the overall corporate results. The establishment of PMO is seen as an innovative concept for successful implementation of project management best

practices and it enhance success by promoting the use of project management methodology in the organizations (PMI, 2004). Moreover, the increasing complexity in project requires a centralized body such as PMO to coordinate the affairs of the overall project (Marsh, 2000). Over the years, there has been an important organizational change in the many company, and this warrant a methodology and an interpretive framework to capture the dynamic complexity involve in the organization. Some researchers related that this is advantageous for companies to have PMO so as to be able to use a research approach that uses history and context in understanding what has been observed in time and space in complex system within the organization (Midler 1994; Pellegrinelli et al., 2007; Martinsuo, 2006).

1.9.4 Disadvantages of PMO

One of the major setback for implementing PMO has been related to high investment needed for establishing it (Soares, et al., 2008). It was further explained that the acquisition of qualified human resources, through the recruitment of highly skilled and trained personnel is a huge investment. Moreover, allocation of physical space with computational infrastructure could be a demanding task to accomplish. Complexity arise from the use of PMO has studies has shown that there a quite a number of various types of PMOs that exist, thus, establishing the one that fit the organization can be a daunting task. Hobbs and Aubry (2008) argue that a typology of PMOs that reflect the variability in purpose and characteristics is needed for effective use of PMO. Other study showed that the impacts of a PMO may be lag behinds its formation, but O’Leary and Williams (2008) make claim that such lag may be relatively short due study on the frequent reconfiguration of PMOs (Hobbs and Aubry, 2007; Pellegrinelli and Garagna, 2009), while studies shows changes in the PMO formation and its influence to their role and their impact on the project success and senior management satisfaction.

Chapter 2.0: Project Success and Project Failure

Back in the 1980s, project success was based on the subject of implementation, and thereafter, literature extends into the concepts phase and close-out phase (Muller and Jugdev, 2012). With the understanding of the concept and definitions that projects are mostly created to improve business processes and/or to create change often with a goal to attain better result – more profits, growth, and improve market position (Shenhar et. al., 2001), thus, it is important to determine what makes a project success and what makes a project failure. Although several studies have shown the impact of effective projects on firms' performance (Menke, 1997; Ittner and Larcker, 1997), however, the researcher perception of project success and project failure is such that it is a volatile issue which can be seen through the eye of the initiators. According to Turner and Zolin (2012) revealed that the measurement of project success has overtime focused on tangibles but current thinking shows that stakeholders, especially the primary sponsor are the best judge (cited by Turner and Serrador 2014). Moreover, Shenhar et al. (2001) noted that many project manager and project team still ironically do not focus on the successiveness of the business aspect of the project but rather, are concerned about getting the job done efficiently by not wasting time and money but ultimately brings disappointment on the business results at the end of the project completion and perhaps, often referred to as project failure. Study by Davis (2013) stressed that the perceptions of success by stakeholders are significant in comparison to the criteria and actual performance. Although, quite some researchers still find it difficult to comprehend the importance of project management industry as it relates with business and management field (Kwak and Anbari, 2009). However, other studies have recognized the need to have project management office as a coordinating body to achieve the organization strategic objectives, examples of which have been achieved in industry such as telecom, aerospace, and defense (Desouza and Evaristo, 2006). The study of Shepherd et al (2011) defined project failure as the termination of an initiative due to the short fall from attaining an organization value that is supposed to meet its goals (Hoang and Rothaermel, 2005; Shepherd et al 2009 cited by Shepherd et al., 2011). This among other definitions forms the perspective from which the project success and failure would be consider, since the concept seem to have a diverging views.

2.1 What is "success"?

Several literatures have focused on what is success over the years back (Hartman, 2000; Atkinson 1999; Cooke-Davies 1990; Pinto and Slevin 1988b; Belassi and Tukel 1996 cited by Muller and Jugdev 2012), however, with the exception Pinto et al. many of which lacked empirical work (Muller and Jugdev 2012). Recently, a longitudinal literature review revealed an in-depth insight into what was regarded as success since the early 1970s (Davies 2014). According to Davies (2014) noted that many of those studies focused on the operational side, tools and techniques ('iron triangle' of time, cost and quality, citing Atkinson 1999; Cooke-Davies 1990), and neglected the behavioral 'soft skills' such as communication with customers (Jugdev and Muller, 2005 cited by Davies 2014) as to what are considered as success. Moreover, De wit (1988) argued that many factors relating to success or failure of projects are common in the literature, however, can they be regarded as a success factors? In addition, the study of Jugdev and Muller (2005) critiqued the outcomes of studies highlighting their focus on the operational level rather than the strategic management of project that will link project to the overall organizational objectives. These among many issues have continue to make researchers to explore what constitute success. In view of these points, some studies have suggested the addition of new elements to the idea of project success – client satisfaction and customer welfare (Shenhar et al., 2001). However, the definition of project success by the Canadian Oxford Dictionary (1998) define success as "the accomplishment of an aim; a favorable outcome" (cited by Ika 2009). Although, others like Baker et al added elements from the perspective of the four different stakeholders: the customer, the developer, the project team, and the end-user (cited by Shenhar et al. 2001), while on the basis of technology, size, complexity, risk and other variables, there has been need to classify success with a different approach (Shenhar et al., 2001). Thus, making the issue on project success possessing different ways by which it can be consider.

2.2 What is "failure"?

Failure has been seen as a problem with a long negative impact in an organization, especially within the project-based organizations (Lindahl and Rehn, 2007 cited by Sage et al., 2014). The concept behind project failure continue to be understood within a narrow functionalist-positive/managerial perspective (Soderlund, 2011; Turner et al., 2013). This is on the basis that success or failure of projects are not necessarily a contradictory idea (Fincham, 2002), neither

could the two be referred to as a “black and white” issue, as stated by (Baccarini, 1999) but it is an issue which need to be pointed out that all stakeholders can hardly hold on to the same view point on the outcomes of a project (Ika, 2009). So what really constitutes failure? Is a discussion often open to the views of the stakeholders on a project, as different stakeholders usually have a metrics to determine the success or failure of a project (Janssen et. al., 2015). As related from Janssen et al’s study, transformational projects might be seen as successive even though it exceeded time of delivery, cost and/or only met some desired functionality. Although, various studies have shown that between 40 and 60% of Information Systems Development (ISD) projects fails to meet budget estimates and the degree of over budget could exceed 200% (Whittaker 1999; Keil et al 2000; Robey and Keil, 2001; Goldfinch 2007; Bartis and Mitev, 2008). There hasn’t been sign as to project failure improving, as certain industry sectors or project types also report such fundamental project failure, but this trends are common with information technology projects (Ewusi-Mensah 2001; Park et al., 2008 cited by Conboy, 2010), both in the private and public sector (Whittaker 1999, Goldfinch 2007 cited by Conboy, 2010). However, failure serve as an important learning experience, and forms a usual occurrence especially in the entrepreneurial (Burgelman and Valikan-gas 2005; Shepherd and Cardon 2009; Sminia 2003) and science-based R&D organizations (DiMasi et al. 2003) as well as for those in organizations that face dynamic (Deeds, Decarolis and Coombs 2000; McGrath et al., 2006), complex (Gassmann and Reepmeyer 2005), and “high-velocity” (Keil and Roby, 1999) environments. Nevertheless, some other researcher cautioned that there are substantial obstacles to learning from failure (Shepherd et al. 2011).

2.3 Types of success

According to Thomas et al. (2008) noted that the measurement of success is not straightforward, which has led to the distinction on the success of project management and on projects. It was recognized that projects can be a success despite a poor project management performance (Munns and Bjeirmi, 1996 cited by Turner and Serrador, 2014). Thus, Cooke-Davies (2002) differentiated between project management success and projects by referring to projects success as a means of achieving the business objectives, while project management success is regarded as how well projects are managed to the desired scope within time and cost (cited by Turner and Serrador, 2014). In essence, measuring project on a broader scope has resulted to an update in the latest

version of PMBOK to include customer satisfaction, in addition to the triple constraint (Project Management Institute 2008). The study of Turner and Serrador (2014) shows the extent by which the measurement of success is correlated (as shown in Table 2).

Table 2: The five dimensions of project success (Adapted from Turner and Serrador, 2014)

S/N	Success dimension	Measures	Time
1	Project efficiency	Meeting schedule goal Meeting budget goal	End of project
2	Team satisfaction	Team morale Skill development Team member growth Team member retention	End of project
3	Impact on the customer	Meeting functional performance Meeting technical specifications Fulfilling customer needs Solving a customer's problem The customer is using the product Customer satisfaction	Months following project
4	Business success	Commercial success Creating a large market share	Years following project
5	Preparing for the future	Creating a new market Creating a new product line Developing a new technology	Years following project

A related study shows the importance of project efficiency as some important success criteria, wherein, it was recognized that if the project is completed late and over budget it will be more difficult to be categorized as a business success (Turner and Zolin, 2012 cited by Turner and Serrador, 2014). That is why it can be argued that time, budget and scope are important part of project success but those not necessarily satisfy all conditions of project success (Turner and Zolin 2012; Xue et al. 2013). Furthermore, Prabhakar (2008) noted that considering only schedule and budget performance alone has been generally agreed to be inadequate a measure of project success. Moreover, the study showed that “quality is intertwined with technical performance, specifications, and achievement of functional objectives and it is achievement of these criteria that will presence the variation in the perception of the multiple project stakeholders” (p7). Instances have been reported where projects are delivered as planned – on time, within budget and meeting the performance planned for the project but was overall considered as a failure project because the project failed to meet customer requirements (Dvir et al., 2003 cited by Turner and Serrador, 2014).

2.4 Types of Failure

There have been many factors that causes failure in the literature. According to Janssen et al. (2015) related that failure can be ranked from scale ranging from not meeting the desired functionalities to complete failure in which almost all efforts and funds are wasted. The fundamentals of project failure or success rest mostly on delivering the required functionality, meeting schedule, and staying within the allocated budget at the time of finishing the project (Janssen et al. 2015). Although, there has been many instances where projects were deliver within budget, on time, and according to the defined scope but still been classified as failures (Ika, 2014). In view of this, there has been clamor to extend the criteria for failure beyond the meeting time, cost and scope to include criteria that meet the stakeholder's expectations (Ika, 2014). Quite a numbers of studies have delved into the study of project failure (Daniels and LaMarsh 2007; Lu et al 2001; Pinto and Mantel 1990; Yeo 2002 cited by Jansses et al., 2015). Some of these studies have come up with failure categorization such as people, process, product and technology (McConnell 1996 cited Jansses et al., 2015). The changing nature of these categories has brought about a rapid evolution in both the internal and external business environments, thus, demanding a change in customer requirements, markets and regulations (Jansses et al., 2015). Such dynamic influence resulting from changes and emergent behavior makes it difficult to act on predefine plans (Jansses et al., 2015). Early study on project failure indicated that wrong choice of project manager, the unplanned project termination and unsupportive top management were the main reasons for failure (Avots 1969 cited by Belassi and Tukel 1996). Further, Hughes (1986) noted that performance of project is affected due to improper basic managerial principles which includes improper focus on the management system, rewarding the wrong actions, and the lack of communication of goals (cited by Belassi and Tukel 1996). Recently, study on project failure delved into the factors causing failure, which are as follows: lack of vision, poor execution, criticisms, lack of sufficient operational expertise, poor marketing strategies, financially mismanaged project, and lack of contingency plan (Abbasi et al 2014).

2.5 Fundamentals of project success and failure

In the past, there has been some fundamentals factors upon which the success and failure of projects are based. According to Atkinson (1999) expressed that project management success or failure were based on some lists of factors believed to be major contributors, and these factors –

time, cost and quality often referred to as The Iron Triangle are regarded as the determinant of project success (citing Morris and Hough 1993; Gallagher 1995). However, despite identifying these factors, projects continue to fail (Atkinson 1999). The study by Ika (2009) stated that often projects delivered within time, quality, and cost have been found to be a failed project. Further, also noted in the case of second generation of the Ford Taurus car which were completed on time were termed to be a failed project as it does not meet the business expectation (Shenhar et al., 2005 cited by Ika 2009). In fact, other projects have exceeded time or cost but were considered to be successive (Pinto and Slevin 1988a cited by Ika 2009). Moreover, Belassi and Tukel (1996) argued that the focus on better scheduling problems so as to improve the ways projects are managed would not solve the problem of project failure, as there are many factors beyond the control of management that determines the success or failure of a project. Contrarily to other studies, Belassi and Tukel (1996) claimed that more studies in the past focused on project failure rather than concentrating on project success (Avot, 1996; Balachandra and Raelin 1984; Bedell, 1983; Hall, 1980; Morgan and Soden 1979). Nevertheless, project success has long been considered as the ability of the outcome to be within time, cost, and quality constraints as noted by (Ika 2009). The difficulties involved in the assessment of project success owing to the various factors to consider has driven project managers to apply a simplistic approach in success rating (Shenhar et al. 1997). It was noted that projects are often been consider a success on the fact that those projects came within the time and budget expectation and attain an acceptable level of performance (Shenhar et al. 1997). Although, these factors are not of ultimate success criteria because they are form of internal measurement which can be misleading, but are regarded as the easiest form of measuring project success (Pinto and Slevin 1988 cited by Shenhar et al. 1997).

2.6 Developments in the literature

Practitioners have over the years worked tirelessly in realizing project success, but projects' results continue to disappoint stakeholders (Wateridge 1995 cited by Ika 2009). This trend in recent times has been noted by experienced project managers in which many cases have been categorized as a failed project (Ika 2009). Without delving into the issue of how many failed or successive projects has occurred, it become imperative to understand the project success and project failure. Undoubtedly, project managers have continued to evaluate their career and success through the performing organization business success. According to Cooke-Davies (2002) noted that project

success has attracted much attention in the literature, this brought about the devotion of an entire symposium held by PMI in the 1980s (Baccarini 1999; deWit 1988 cited by Ika 2009). Moreover, other researcher considers success as an attributes belonging to God, as such, it could be reason why there hasn't been a consensus on the definition nor its measurement (Pinto and Slevin 1988a cited by Ika, 2009). This led to the study on "perceived success of a project" with a nullification of "absolute success" due to the assumption that the concept or evaluation of success changes over time (Baker et al. 1974 cited by Ika 2009). The popularity of project success is a factor of its reputation in high rated journals, with a citation over 100 in Google.scholar as of December 2011 and its top 15 list span between 1988-2011 timeframe (Muller and Jugdev, 2012). Pinto and his colleagues produced 2 paper out of the 15 papers (i.e. 13 percent), while 53 percent of the papers can be found in project management journals (six of the 15 papers were in the Project Management Journal and two were in the International Journal of Project Management). The collective understanding on project success is linked with respect to the work of Pinto, Slevin, and Prescott which dates back to the late 1980s (Muller and Jugdev 2012). It was noted that their study identifies the growing scope and diversity of the project success literature and its impacts on the field.

2.7 The Problem Statement

In view of the problem stated in section 1, which is due to the challenges in achieving the business strategy of the organization and the obscured nature of the value of PMO that the study seeks to investigate the PMO characteristics on project success and failure, a governance approach. The critical problem associated with the business initiated were due to delay in providing project requirements and, thus, the business activities is characterized with unskilled personnel's, lack of task coordination, non- prioritization of activities, poor project management approach among others, which hinders the activities of other sub-division of the departmental projects that are needed to be executed. Though recent reviews have shown that organizations have begun to recognize that their strategies and initiatives can be essentially achieved via the execution of projects, and by so doing is stimulating the understanding for project management competency (Hurt and Thomas 2009), a situation that has given rise to formal development of an organizational project office, more often called Project Management Office (PMO) (Hurt and Thomas, 2009). While it is recognized that PMO has been around as early as in the 1990s, recent study shows that

many has just been created or restructured (Kerzner 2003) but have been followed with several criticism as to the value of PMOs in the organization (Dai and Wells 2004; Martin et al 2007 cited in Hurt and Thomas 2009). Basically, PMOs activities ranges from providing administrative support for projects to providing coaching to main executors of projects, where their formal role is to manage and deliver projects for the organization (Hurt and Thomas 2009). Others such as (Hill 2001; Rad 2001) have define the basic functions of PMO, however, Hobbs and Aubry (2007) provided the most ground breaking insight into the functions of PMOs in the organizations as of today (cited by Hurt and Thomas 2009). Significantly, going by the reviews from the literatures it appears and suggests that a number of projects may be failing to attain their objectives due to an absence of management structure. In this study, the exploration of the absence in the management structure with respect to project success and failure can be attributed to a territorial exploration, where it is assumed that PMO as a central entity can bridged the gap in achieving the organization objectives and strategies. This is in line with the study by (Handfeild and Melnyk 1998, p. 324) where 'explore territory' was used. However, due to the complexity involve in understanding what constitutes project success and failure, an overarching research questions as has been proposed with respect to the implementation of PMO in the reviewed case. Thus, the research demand an answer to this questions, as follows:

Research Questions

- i. What is the key role of project governance, specifically in the form of PMO?
- ii. How can PMO give the much needed value that will provide the basis for either project or failure?
- iii. Why would PMO's contributions have any significance in project success or failure?

2.8 Aim of the Research Study

The aim of the study is to explore the role of PMO and understand how PMOs contribute to project success and failure via the project governance.

Objectives

1. To determine the function of PMO in organizations with respect to project success or failure

2. To investigate the problems associated with PMO in assuring a project for success
3. To establish ways by which PMO can be used to influence project success/failure
4. To provide recommendation on ways by which PMO can be implemented to facilitate project success in the organization

Chapter 3.0: Theoretical Framework

This theoretical framework embraced the concept of governance in its view to understanding the characteristics of PMO and how it impacts on the success or failure of project. Basically founded on the basis to provide a framework for ethical decision-making and managerial action within an organization that is based on transparency, accountability, and defined roles (Muller, 2009 cited by Too and Weaver, 2014). It is based on literature review and experiences garner over the years working in a project-based organization. The impulse is to see how PMO can be implemented in an organization that is faced with challenges on handling project to success. As noted in the literature a growing trend of PMO implementation is on the increase, however, there role, function, relevance, and value is still being questioned (Babaeianpour and Zohrevandi 2012). In this study, the concept of governance will be used via this theoretically framework to gain the understanding into the issue by providing order that will shed light on the type of questions posed which is related to what, how and why of the phenomenon. This approach would be based on Tashakkori and Creswell's definitions on mixed methods which states that "*Research in which the investigator collects and analyses the data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry*" (2007, p.4). Although, it is acknowledged that PMO concept is growing in organizations (Peter and Jamieson, 2004 cited by Soares, et al., 2008) but is known to be highly divergent in its operations across in organizations (Chang and Ishii, 2013). Since the PMO function as a legal entity within an organization, and its success is largely dependent on the support received from the senior management, the corporate governance plays an important role in that regard. Hence, the need for the views of practitioners and academician/researchers to investigate the type of research questions posed in this study. Nevertheless, "*The critical task is to adopt and use the models, theories, and research methods that are appropriate for the research problem and question being addressed*" (Van de Ven, 2007). The understanding of PMO demands a multi-dimensional approach in which information can be analyze both from the practitioners and academic point of view. Based on Babaeianpour and Zohrevandi (2012) reported that academics argues the efficiency of PMOs, moreover, ESI International (2011) showed that 41% of respondents from non-Project Management Office staff rated their organization PMOs has moderately good or poor (cited by Babaeianpour and Zohrevandi, 2012). The fact that PMOs is such a dynamic environment, its implementation and creation of value should be investigation through the concept of governance.

According to Too and Weaver (2014, p.5) claimed that “*good governance is the creation and maintenance of sustainable value for the organization and its stakeholders*”. Although, the ambiguity involved on the issue of governance in defining a unified definition makes this study to adopt corporate governance model. Moreover, Bekker and Steyn study confirmed that “There was general consensus that the principles of corporate governance applies to project governance; half of the respondents added that project governance should not only be aligned with corporate governance, but be a subset of corporate governance”. (Bekker et al., 2009, p.87). In the report by Cadbury Report (1992, p.14) defines corporate governance as follows:

“Corporate governance is the system by which companies are directed and controlled. Boards of directors are responsible for the governance of their companies. The shareholders’ role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place. The responsibilities of the board include setting the company’s strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship” (Too and Weaver, 2014). The research that uses a Delphi study of practitioners and academics undertaken by Bekker et al (2009, p. 87) described “project governance is a set of management systems, rules, protocols, relationships, and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation” (Bernardo, 2014). Nevertheless, ISO 21500 present’s governance as the framework by which an organization is directed and controlled” and states that “project governance include but is not limited to, those areas of organizational governance that are specifically related to project activities”. In the case of project governance, Turner and Keegan (2001) defines project governance as a central tool for controlling the risk exposure of individual projects. Similarly, project governance was defined as the set of principles, structures, and processes for undertaking the management of projects (Crawford and Cooke-Davies, 2009 cited by Ahola et al 2014). Moreover, Turner (2006) suggests that governance of a project involves a set of relationships between the project’s management, its sponsor (or executive board), its owner, and other stakeholders. On the other hand, broader definition of project governance was given by researcher such as Ruuska et al (2009), and claimed the it is a way that respond to the project stakeholder demands, documentation procedures, communication and contractual arrangements (cited in Ahola et al., 2014). Obviously, the existence of project governance lies beneath an umbrella of a

body called “Corporate governance.” The fact that governance addresses decision to act, and its accountability is an issue assigned between the project team and executives. Thus, this makes the lack of good governance liable to commercial failure and regulatory problem, hence, organization may be seen to have lost its objectives and responsibilities to its stakeholders in delivering project success (Too and Weaver, 2014). Worthy of note is that the success or failure of project has been researched not to be in the entire control of the project manager and project team, but the essential factor, governing the success or failure of project is seen in the lack of governance (Crawford et al., 2008 cited by Too and Weaver, 2014). That is why there has been several definitions involving governance and the use of project governance. The presence of such framework are useful in the navigation in mixed method that consist of concurrent or sequential investigations, and thus, enhance the combination of method that can provide answer to questions with *what* and *why* to gain a multidimensional understanding of causal mechanisms (Too and Weaver, 2014). The believe of Van de Ven (2007) guided this study, where it was purported that “*engaged scholarship is defined as a participative form of research of obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems*” of this nature, as presented in this study. Moreover, it is believed that mixed method is adequate to be used as a complementary approach that can accommodate the scientific rigor and theory alongside uncertainty and instability (Evans et al., 2011). To this end, survey questions were developed from the viewpoint of well-known researchers’ studies and structure questions were used to conduct the interviews, as discussed in the chapter 4.

Chapter 4.0: Research Methodology

4.1 Introduction

The chapter essentially describe the steps and measures used to carry out the study for this research. It covers the research philosophy, research approaches, research choice, data collection and analysis.

4.2 Research Philosophy

According to Concise Oxford English Dictionary (COED, 2004) defines research as “*the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusion*”. In like manners, Burns (2008) expressed the conduct of research to be a systematic investigation to finding solution to a problem. Based on this, it is important to establish the research in a systematic, reliable, valid, and organized way such that facts can be created, as viewed by (Bryman, 2008; Gilbert, 2008; Kumar, 2005). There are two major philosophies that underpin the basis for a research, it would be essential to explain the basis in which it was develop for this study. Basically, social science researchers, among which includes (Bryman, 2008), classified two main philosophies in social research: ontology and epistemology. Where ontology is said to deal with the logical investigation of examining different types of things based on thought as it exists, and nature of their existence, epistemology address the question of what is generally acceptable knowledge in a discipline. The epistemological stance has been divided into positivist and interpretivist approaches (Bryman 2008). The Interpretivist approach is based on developing knowledge and theory through ideas generated from observation and interpreted social constructs, whereas, positivist approach deals with establishing investigations into social reality through objective facts (Bryman, 2008). The study seeks to know how the governance impacts on the role of PMO in either facilitating a project success or failure tend to promotes a reality finding on this issue. However, it suffices to explore the definition to research.

4.3 Research Approach

According to Kothari (2004, p.5) explained that there are two basic research approaches: quantitative approach and qualitative approach. Creswell (2009) defines quantitative research as “*an inquiry into a social or human problem, based on testing a hypothesis or a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to*

determine whether the hypothesis or the theory hold true”. That is why quantitative research rely on numbers, using hard and reliable data, and are analyzed through mathematical and statistical techniques to identify facts and linking the causal relationship existing among variables (Gilbert, 2008; Naoum, 1998). Generally, large samples are encouraged when using quantitative approach, as it presents a more representative and allows a generalization to the large population within an acceptable error limits (Bryman, 2008). To analyze quantitative data, statistical analysis and content analysis are usually used (Bryman, 2008; Naoum, 1998). This allows for either a descriptive statistic such as represented using a histogram, pie charts etc., or inferential statistics which uses correlational, regression analysis etc. The content analysis quantifies content of documents and a predetermine categorization are generated from text (Bryman, 2008; Naoum, 1998). Qualitative research entails “*an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human experience*” (Creswell, 2009). Its approach to data collection is driven by theoretical issues, and are usually in a non-linearly focused (Kumar, 2005, Bryman, 2008). Basically, it aimed to capture a holistic view of the problem that involves discovery (Williams 2007). Since, the approach will make explicitly the principle governing the governance of project to ensuring project is success or is deemed to failure from an academic point of view, it is worthwhile to consider it. However, it employs methods such as case study, grounded theory, ethnography, content analysis, and phenomenology (Leedy and Ormrod 2001), and generally, uses small samples, it limits the coverage of the findings (McDaniel and Gates 2006). Thus, this necessitated the use of mixed method approach advocated by Tashakkori and Teddlie (1998), while it might be argued that there exists the use of two paradigms in this study, Johnson et al., (2007) establishes its permissibility in mixed method approach, amidst its critics such as (Guba and Lincoln, 1994). Hence, the need to layout the structure of the research study.

4.3.1 Quantitative Research

This type of research can take either an experimental or descriptive (i.e. non experimental) approach. In the experimental research, control is existed over one or more variables by the researcher. This kind of research can be seen in experimental (random assignment), quasi-experimental (subjects or randomly assigned), and single-subject (focused on individual or few people). As the research objectives and questions drives the selection process this type of approach

is not consider. In the case of non-experimental research, where it can take the form of descriptive (i.e. representation in terms of frequency or amount), and can also be a comparative (correlational relationships among two or more variables), and causal comparative (relationships between past and subsequent response) (McMillan, 2000 cited Castellan 2010). This approach suit the underlying objective of the research study, and thus, consider for the research. To achieve this, the researcher employed the use of survey (i.e. structured) as the method of data collection.

4.3.1.1 Survey Design

Surveys are used to gather valuable data such as attitudes, values, experiences and behavior. This can take the form in a face-to-face interaction, telephone interviews, postal questionnaires, and of recent email (online) surveys (Gilbert, 2008). While surveys may be cross-sectional (one-time collection of information) and longitudinal (over a period collection of information) (Krosnick and presser, 2010), there is great value in the recommendations about best practices stemming from experience and common lore and methodological research in which they are conducted (Krosnick and presser, 2010). This best practices and methodology are expressed in terms of the words used in the questions and structural features of the questions. Fellows and Liu (2003) noted that surveys can be highly structured questionnaires or unstructured interviews but the subject matter is introduced to the respondent irrespective of the form that may be adopted.

4.3.2 Qualitative Research

In this type of research, uses an approach with a different philosophical assumption; strategies of inquiry, data collection, and analysis and interpretation of results (Creswell, 2009). It emphasizes on the qualities of the phenomenon, processes and meanings that are not experimentally examined or measured in quantity, amount, intensity or frequency (Denzin and Lincoln, 2008, 8). Thus, it is said to be based on meanings, concepts, definitions, characteristics, and the descriptions of things (Berg, 2007). Since the research questions leads the direction in which the research will take, the researcher have decided to understand from the perspective academic professionals on the role of governance in facilitating project to success or failure. Thus, drawing on the techniques available such as phenomenology, hermeneutics, deconstructivism, which may take the form of interviews, cultural studies, participant observation, grounded theory to mention a few, the researcher has chosen interview as a means of satisfying this objective. Hence, the qualitative data collection

method was based on an interview (structured), which was predisposes from the quantitative research (survey questionnaires) outcomes as a means to juxtapose between the practitioners' views and the academic professionals' perceptions.

4.3.2.1 Interview

Interview has been described as a compelling way of gathering good evidence for process-tracing research (Tansey, 2007). It allows data to be collected from individuals through conversations. According to Kvale (1996) regarded interviews as "...an interchange of views between two or more people on a topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situatedness of research data." (p. 14). There are fundamentally three types of interviews: structured, semi-structured and unstructured (Bryman, 2008). A structured interview is essentially a verbal administered questionnaire and, in most cases, a predetermined question is asked (Bryman, 2008). In the case of semi-structured interviews, this usually consist of different types of questions that can help to explore the area of investigation in-depth (i.e. with ability to digress in order to have a broad understanding of the phenomenon under consideration). While, an unstructured interview, it does not reflect any preconceived ideas, and are done with little organization (May, 1991), it creates room for the interviewee to feel more relaxed as it gives the responder the choice of the extent to reply to the question (Bryman, 2008). For this study, the researcher chooses to use a structured interview to elicit information from academic professionals which may be in support or contrarily as perceived by the practitioners via survey questionnaire, in respect to the exploratory subject on the role of PMO in facilitating project success or failure through the lens of the governance structure. Although, the use of structured interview is frowned at due to its limitation in indulging the participants in an in-depth study, however, the purpose of the study is to gain specific useful information, and this has been supported by (Dornyei 2007 cited by Alsaawi, 2014).

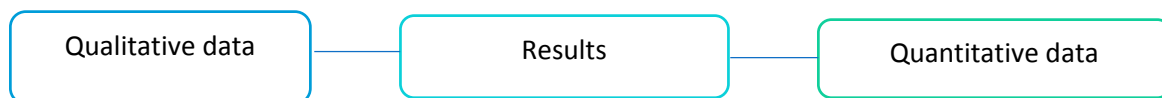
4.4 Research Choice

4.4.1 Mixed Methodology and Triangulation

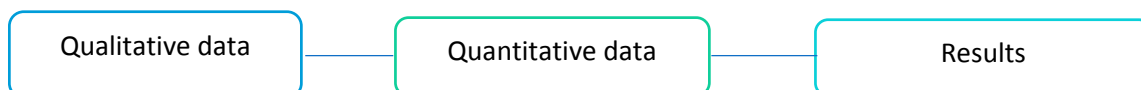
The combination of the two prominent research approach (i.e. qualitative and quantitative research) within a single research is known by different names: multi-methods (Brannen, 1992), multi-strategy (Bryman, 2004), mixed method (Creswell, 2003; Tashakkori and Teddlie, 2003) or

mixed methodology (Tashakkori and Teddlie, 1998) cited in (Bryman, 2006). It has been advantageous to research studies as it provides more comprehensible evidence for studying a research problem than the use of a single approach, whether via quantitative or qualitative research only (Creswell et al., 2007). The domination of either quantitative or qualitative research depends on the role each play within the research study. It derives advantages in the value of the mixed data collected, and three types of integration the approaches have been described by (Creswell et al., 2007), as shown in Figure 3.

Merge the data



Connect the data



Embed the data



Figure 3: Creswell et al., (2007) Data Mixing (Modified)

Essentially, as used within the context of this research study, the research approaches are adapted in order answer the research questions so as to address the research problem. While quantitative research is best suited to answer research questions beginning with “What” and “How”, qualitative research is often used to gain appreciation of the fundamental part of a social entities and how it has change over time (Van de Ven, 2007). The combination of the two approaches will provide the research study the much needed understanding in addressing the purpose of the study.

4.5 Research Data Collection and Analysis

4.5.1. Survey Overview

In the study by Zikmund and Babin (2010, p.64) noted that survey is a research technique that collects responses from participants through a structured instrument in the form of values, personal experiences, attitudes, and behaviors. Surveys are generally used in management research via

employing a questionnaire that collects data from respondents, and are subsequently analyzed statistically (Saunders Lewis & Thornhill, 2007). The basis for the use of survey is to quantify data by measuring, examining, analyzing and generalizing the findings (McDaniel & Gates 2006). It can be administered through face-to-face interaction, telephone interviews, postal questionnaires, and popularly used in online survey (Gilbert, 2008). To achieve the goal of this study, a web-based surveys was design to gather descriptive data on the role of PMO in the organization on project success/failure viewed through the governance. By this, the study will gain a broader understanding on the issue of governance and how the PMOs are managed within context of those project-based organizations that will be used for the investigation.

4.5.2. Survey Design

The survey serves as a way of gathering invaluable data about personal experience, attitudes, values, and behavior, and uses questionnaires as a tool to achieve this purpose (Bryman 2008; Gilbert 2008). This influences the collection of data from a number different practitioners working across industries, and the need for a speedy data collection with less cost where interviewer interference is limited (Zikmund & Babin, 2012) will greatly help in data collection. To attain this goal, survey monkey was used to disseminate surveys electronically, and design using Likert scales, which are meant for measuring personal experiences from respondents by choosing from a number of statements that range from ‘strongly agree’ to ‘strongly disagree’, as suggested by (Zikmund, 2003; Saunders, Lewis & Thornhill, 2007). While surveys design usually faces challenges in question formulations to obtain most relevant information, the approach adopted was based on literature review as suggested by (Gilbert, 2008; Naoum, 1998) helped in phrasing and keeping the questions on focus with respect to the issue under investigation, as shown in Table 3.

Question 1: Describe the various functional duties carried out by PMOs. In this section, several variables were identified. While there are several other variables used to determine the functions of PMO, only ten variables have been selected for this study. These variables were identified based on a more detailed research study such as (Hobbs and Aubry 2007), and this approach endorses the validation of the list of functions represented for this present study.

Question 2: Describe the PMO contributions. In this section, several variables attributable to PMOs contributions were identified, and participants were asked to provide their candid personal experience/believes on those measures. A list of variables attributed to PMO contributions were obtained from study including (Wells 1999 cited by Kwak and Dai, 2000).

Question 3: The questions asked under this section, assess the orientation of the participants' organization's governance, and thus, represents the structure under which PMO operates. Those sets of questions used in this section were based on questionnaire developed by (Muller and Lecoivre 2014).

4.5.3. Phases and Deployment

In this section, the collection of data through both quantitative and qualitative research method are explained. While the phases involve are presented sequentially, it has however been carried out simultaneously.

4.5.3.1 Quantitative Phase A: Web-Based Survey for Practitioners on PMO Characteristics

The survey administered in this phase was developed based on the details in section 4.5.2. To achieve its objectives, the researcher resulted to contacting friends, colleagues and referrals were employed in obtaining the needed information. The use of friends and referrals allows a 'snowball approach' for the survey administration. In all, 21 valid responses were collected. The information collected were from practitioners which included heads of PMO, non-project management teams, and project managers in PMOs based organizations. Its distribution was done via survey monkey. The basis of their selection rest on the fact that such participants knows the current challenges facing the PMOs and provide valuable information across industries, since surveys are usually design to provide a 'snapshot of how things are at a specific time' (Denscombe, 1998). As for those who participated, strict confidentiality was ensued, the description was based on how each practitioner perceived the PMO within their organizational context (i.e. governance) based on the three questions measured through 10 variables each, as illustrated in the Table 3 below:

Table 3: Showing the questions measuring the PMOs characteristics

1. Generally speaking, do you think of the following as a PMO functions in your organization?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Develop and implement a standard methodology	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Supply a set of tools with an effort to standardize	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Provide mentoring/training for project managers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Organize environmental scanning and networking	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Identify, select and prioritize new projects	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Manage one or more programmes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Allocate resources between projects	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Monitor and control project performance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Report the status of projects to upper management	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Conduct post-project reviews or post mortems	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

2. In general, how would you rate the PMO contributions to your organization?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Do you think PMO enhance predictability and repeatability of PM tools and techniques	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO promotes growing staff professionalism in PM	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO improve the organizational design and performance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO help in productivity and skillfulness of the project teams	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Do you think PMO creates profitability improvements	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO facilitate the use of PM in becoming a core competency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO creates external recognition for overall organizational performance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO enables standardization and portability of tools and techniques	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO creates an overhead, expensive and unnecessary burden to the organization	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Do you think PMO adds extra layer of bureaucracy that slow down business and consume resources	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3. How do you perceive the PMO structure in your organization?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
In my organization decisions are made in the best interest of the wider stakeholder community (incl. shareholder, employees, local communities etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
In my organization prevails an image that wider social and ethical interests determine the legitimacy of actions (including projects)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
In my organization I am sometimes asked to sacrifice the achievement of financial objectives for improvement of stakeholder satisfaction	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
In my organization the long term objective is to maximize value for society	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
The management philosophy in my organization favors tight formal control of most operations by means of sophisticated control and information systems	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

The management philosophy in my organization favors a strong emphasis on getting personnel to adhere closely to formal job descriptions	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
The management philosophy in my organization favors support institutions (like a PMO) should ensure compliance with the organization's project management methodology	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
The management philosophy in my organization favors prioritization of methodology compliance over people's own experience in doing their work	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
In my organization prevails an image that profitability determines the legitimacy of actions (including projects)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
The management philosophy in my organization favors a strong emphasis on always getting personnel to follow the formally laid down procedures	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Those constructs were subjected to different level of descriptive analysis, so as to organize and summarize data into meaningful structure (Singleton and Straits, 2005). The process is built on a formal approach (i.e. literature reviews and emailed questionnaires) which is built on structured closed-end questions to measure specific area relating to the cause of investigation using a large population to answer them (McDaniel and Gates, 2006). More important, is the fact that quantitative approach (i.e. questionnaire survey) is purposeful for quantifying the occurrence of a particular variable by processing and analyzing the gathered data, and using statistical processes to find a precise measurement that reflects the relationship between variables (Saunders et al., 2007). It is intended to make a description on the most important variables with respect to PMO characteristics. The explanations in this perspective would be provided based on independent variables that statistically explain variations on some dependent variables.

4.5.3.2 Qualitative Phase B: Structured Interview for Academic Professionals on PMO Characteristics

In this phase, five (5) members of the academic staffs with years of experiences in project management were contacted to provide their perception of governance in relation to the role of PMO in facilitating a project to success or failure. Their positions ranges from associate professors to professors. *“For all research questions where it would be impracticable for you to collect data from the entire population, you need to select a sample”* (Saunders et al., 2013). As such a purposeful sampling method was adopted, and this was inspired by the statements of Van de Ven (2007), which describes the *“engaged scholarship is defined as a participative form of research of obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems.”* (p. 9). Since there has been lot of publications on PMO characteristics in terms of functions, contributions and structures etc., it was in the researcher interest to capture the perspectives of the academic professionals on this complex phenomenon, and contrast it with the reality via the practitioners. Although, the interview conducted with the academic professionals were structured (as in appendix), this was intended so as to see to any patterns in relations to the data collected with that collected from the practitioners. Thus, the interview session was based on an interview-survey with some structured questions on governance to indicate the basis for the research study.

Chapter 5.0 Research Outcome and Results

5.1 Overview of Presentation

This section describe the findings from the structured interviews, and the survey via a questionnaire. The first section presents the outcomes of the structured interview using descriptive coding so as to generate patterns in respect to the guiding questions in this study. Although the research study is a mixed method without an agreed paradigmatic view, however, the combination of quantitative and qualitative approaches within different phases of the research process, tends towards pragmatist paradigm views, as supported by (Tashakkori and Teddlie, 2008). In this view, a concurrent strategy was used, where data were integrated during interpretation/discussion phase, thus, quantitative will be presented in the second phase.

5.2 Presentation Method

The interview result employed descriptive coding so that data can be captured in a systematic way which seeks to confirm or corroborate what has been established in the literature review. This was sort from the perspectives of academic professionals with years of experiences in the academic field. This will help in the ability to draw interpretations by identifying, and detecting variables which are influencing the concerned issues (Alhojailan, 2012) on the implementation of PMO and those factors necessary to lead project to be success or if absence, will render the project as a failure. It is achieved through coding that seeks to notice, identify patterns and themes in the data (Ryan and Bernard, 2000), and the use of literature has been found to be helpful in this regard (Braun and Clarke, 2006 citing Tuckett, 2005). By utilizing this approach, and conjunction with the triangulation method (i.e. questionnaire -quantitative method), factors necessary for the implementation of PMO and its sustainability will be understood.

5.3 Interview Section

5.3.1 Interview I

Question 1: How would you consider the governance structure, considering the governance orientation, being a facilitator of project success as need used in PMO organization?

Response 1: "...it is very important to actually have a **structured (A1)**, well defined laws of the different members involved in the project, will ensure the success of the project, but that can only happen when you have proper governance and follow-up of any planned management"

Question 2: Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

Response 2: "...well, misunderstanding will mean that people will not execute their duties, and in project management of this kind where there are multiple task and interconnected activities, any short-comings will affect the whole"

Question 3: What are the characteristics of a good governance? Why are these factors a predictor of either project success/failure?

Response 3: "First of all, **leadership, knowledge, good communication and ability** to delegate **task and follow them up (A2)**..."

Question 4: Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

Response 4: "Yes, of course, it can. A good governance structure will ensure success and **proper delivery of any project (A3)**...."

Question 5: Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance etc.) to the project success, Why?

Response 5: "..... **a well governed organization will deliver on what it has to build (A4)**, and check any short-comings they can cause any serious issues....."

Question 6: Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

Response 6: "Well, because of the complexity of many projects, it is natural to have variations, it is also because of the human nature. We are all different individuals, so top managers or project managers can have multiple ways of executing project and depending on the kind of complexity of the project the staff has.... I think there are a **number of right ways (A5)** and a good manager will actual choose the best one for its execution"

Question 7: What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

Response 7: “Laugh, I think the human elements that means, first of all, the **leadership, experience and motivated staff and clear duties and responsibilities (A2)**....”

Question 8: Is this principle directly applicable to a particular organization/industry? Please explain.

Response 8: “No, i thinks it apply to any organization, because whether project is in construction: manufacturing: tourism: or any other, we want to **follow the proper and right procedure (A3)**...”

5.3.2 Interview II

Question 1: How would you consider the governance structure, considering the governance orientation, being a facilitator of project success as need used in PMO organization?

Response 1: “Whoa, so complicated.....ok, I think as an organization, try to make sure that **projects contributes to cooperate objectives, and it reflects the organization values, and priorities. They need to make sure that they do not digress from that (A1)**. So in many cases organization finds it difficult to control the project, and this remains the issue of what form the indicators....in this case, the organization need to pay particular attention to the performance indicators.... to reflect, not only the deliverables but also have how the project is managed.....so that it does not produces result that contradicts the value, and the culture of the organization...”

Question 2: Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

Response 2: “Well, it creates contradiction and creates conflicts..... if the organizational governance doesn’t provide the guide..., it is likely that there will be **disruptions (A6)**.... If the project organization is not clear about how and what the project, how the project should be managed and what the project should deliver, there would be misunderstandingFor instance, safety issues in some project organizations, may be taken lightly in other organization. At the planning stage of the project, it is very important that the objective is clear for the organization values can be deliver, what the organizations tries to achieve, and how that project features as part of the portfolios of the organization.”

Question 3: What are the characteristics of a good governance? Why are these factors a predictor of either project success/failure?

Response 3: “.... what I suggest...I really can’t recall...I think....basically **clarity about what the organization is trying to be...its priorities (A2)**...without that it will be difficult to start building up the governance structure within the organization...”

Question 4: Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

Response 4: “...the PMO is if....could be used as a **tool to ensure that the project is selected, instigated, managed to meet the needs, expectation of the organization (A3)**. If the governance structure is weak, in that aspect, then, it is likely that an organization which has a **complex structure (A6)** for example, that the PMO may find itself torn between the different department, it can take organizations, especially government organizations and you may have a department that deals with IT and another department deals with infrastructure and ...another deals with services. Clearly each of they have different needs and easily can put the project in these three areas, it becomes so different and it will be very difficult for the PMO to build some form of framework for the different projects...”

Question 5: Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance etc.) to the project success. Why?

Response 5: “...It think the PMO has it try to develop some common framework for the project and needs to understand, but need support of the governance system, otherwise, you will find the PMO torn between the **conflicting (A6)**between different department that are in conflict in terms of, how they see their projects, should be managed...delivered. What you need though is the governance structure that ensure what were the **responsibilities and how responsibilities are distributed (A2)**.... before you can have an effective PMO.

Question 6: Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

Response 6: “.... I think relates to the **organizations priorities...organization culture...the degree of control (A2)** they would like to have; how close they would like to supervised the project...”

Question 7: What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

Response 7: “..... Definitely, I mean the ...the dominance, **structure in any organization (A1)**, needs to ensure that there is commitment to deliver up to those objectives, and if there is no trust, what you will find is an inefficient processes and practices being deployed, and that is not been helpful”

Question 8: Is this principle directly applicable to a particular organization/industry? Please explain.

Response 8: “....because it relate to governance, it’s really unique for different organization, and hence it requires careful consideration, which will influence the way the PMO is structure, setupcommercial organization who is focus on **delivering highest level of comfortability (A3)**, while another organization is increasing market share, and another organization is achieving satisfaction, supporting social development, that would have an impact on what will be your governance system, and it therefore depend on how project would be managed”

5.3.3 Interview III

Question 1: How would you consider the governance structure, considering the governance orientation, being a facilitator of project success has been used in PMO organization?

Response 1: “...it is a good initiative that **introduces standards into how work are performed (A1)**, and ensure everyone is following the same standard....”

Question 2: Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

Response 2: “...this usually happens when there is **no clarity, or transparency in the way things are defined (A6)**...”

Question 3: What are the characteristics of a good governance? Why are these factors a predictor of either project success/failure?

Response 3: “...these are **clarity, leadership, transparency, and ensuring responsibilities (A2)** are recognized by those who will carry out the responsibility....”

Question 4: Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

Response 4: “Yes, as I have said earlier, they are needed to ensure there are **standards, and to ensure the proper procedures are followed (A1)**. It also entails using a set of tools that will ensure that the projects are delivered as expected...”

Question 5: Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance etc.) to the project success. Why?

Response 5: “Yes, when you say governance, it literally implies a **structure (A1)** to ensure things are done, and any governance you have to report success/failure so you have a yearly report of how project is being success/failure, and lesson learned need to be reported...”

Question 6: Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

Response 6: “.... PMOs are created by the organizations based on their **knowledge of what project management is, and what PMO is. Moreover, the culture plays an important role, which has to do with the management understanding (A2)**, also, based on various organizational issue, which exist in every organization. Of course, organizational understanding of PMO differs based on regulations, laws, standards that are put in place for project would differ accordingly. Other Important thing to consider is much authority is given to the PMO is also affecting the success and whether if they will actually affect the way projects are managed or even the guidelines for projects will be managed...”

Question 7: What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

Response 7: ...there need to be a **framework for which work will be carried out (A1)**. Work has to be done in an ethical manner, there needs ought to be clear on what constitute success or failure. Lesson learned also need to be evaluate to determine what need to be improved upon...”

Question 8: Is this principle directly applicable to a particular organization/industry? Please explain.

Response 8: “... it **relates to the industry or organization you are, which will facilitate the kind of deliverables (A5)**. The culture determine how the organization is going to setup the PMO...”

5.3.4 Interview IV

Question 1: How would you consider the governance structure, considering the governance orientation, being a facilitator of project success as been used in PMO organization?

Response 1: "...those involve in the structure used to be experienced individual, and this help since they are those who have gather experience over the years on projects....."

Question 2: Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

Response 2: "... It's about execution of the project, and all ends up with **good management, so you need decision-making... delegation of work (A2)**, lead to a success project..."

Question 3: What are the characteristics of a good governance? Why are these factors a predictor of either project success/failure?

Response 3: "... it has to do with **leadership (A2)**.... good relationship with the people, and it also requires trust..."

Question 4: Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

Response 4: "...this **involves this risk management (A6)** of this issue, as it involves assessing the actual risk.... overseeing so that adjustment can be made before project is plunged into failure..."

Question 5: Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance etc.) to the project success. Why?

Response 5: "...the **management matter (A3)**, so managing project, how successful you manage it, how successful you deliver it, its accessibility, its performance, the delivery output, its approach, the way challenges are tackled, everything ends with management... "

Question 6: Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

Response 6: "...there will be **differences in approach (A5)** used by organizations and this may impact the governance structure for each industry/organizations..."

Question 7: What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

Response 7: "...there need to be good planning, **good coordination, good overseeing.....transparency (A2)**, and some form of flexibility..."

Question 8: Is this principle directly applicable to a particular organization/industry? Please explain.

Response 8: "...I believe the **issue of governance in handling/managing project can be complex and may vary from organizations to organizations (A5)** but the core principle is applicable/essential for any organization to survival...., I will say its applicable based on the objective to be achieve by the governing body..."

5.3.5 Interview V

Question 1: How would you consider the governance structure, considering the governance orientation, being a facilitator of project success has been used in PMO organization?

Response 1: "...it should lead to **success criteria (A1)**, and this should provide the success required for the project. Moreover, it provide support for the project to be delivered on time, cost, and scope. The governance of project is supported by the organization governance...**any risk on the project will lead to risk of the organization (A6).** ..."

Question 2: Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

Response 2: "...if the **governance structure is not properly define, there will be issues relating to roles and responsibility; mechanism to execute will be affected; no check and balance will be in place (A6)**. The governance should be flourish with ability to communicate responsibilities. It may be that the PMO is not complex but inability to manage the project can be a serious issue"

Question 3: What are the characteristics of a good governance? Why are these factors a predictor of either project success/failure?

Response 3: ".....Good governance has to **be clear and transparent, ethically upright (A2)**, possess mechanism to control risk, cost and auditable....."

Question 4: Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

Response 4: ".....if you have a PMO in succession, the organization have an idea, run objectives as project, **set and prioritize projects, and work to set standards for the execution of projects (A2)**"

Question 5: Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance etc.) to the project success. Why?

Response 5: “...**PMO is an overhead, increases cost when there exist no initiatives (A7)**, no project.....Although it usually comprises of competent personnel but has to be geared with the presences of initiatives...”

Question 6: Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

Response 6: “....variations exist in PMO due to the variations in objectives of the organizations, size, sectors, services, public and non-public, but that shouldn’t be a problem, provided the **essential criteria are adopted (A1)**...”

Question 7: What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

Response 7: “....Things like audit, **cost control, communication, transparency, disclosure (A2)**, but every project have its own requirement and success criteria. Thus, if you want to link success, then, core principles makes the project a success....”

Question 8: Is this principle directly applicable to a particular organization/industry? Please explain.

Response 8: “...Applying this **principles is bound to vary as organization vary from one organization to another (A5)**, for instance one audit system may operates in a different way to the other in the same sector or different sector...”

5.4 Survey (Questionnaire)

This section dealt with the quantitative aspect of exploring the issue around PMO characteristics within project based-organizations. It was explored via the use of a questionnaire that was hosted in survey monkey, which serve as the collection point. In all, there were 21 responses from the questionnaires. This was achieve through friends, colleagues and referrals of participants working in a project-based organization with an established PMO structure, thus, a snowball approach was used in the collection of data. The individuals were targeted to exploit the advantages that these participants have significant in-sights on the issue of PMO since the least years of establishment of PMO in each of the participant was two (2) years. The questionnaire uses a 3 questions which had ten (10) variables each for its measurement using a Likert scale, and these variables have been derived from the literature review. Since the amount of response is limited, the answers were collated and rated using the weighted average on the Likert scale, in order to achieve the criteria

needed to satisfy the research questions and address the aim of the research study. Its objectives is to determine the role of governance on PMO and the value PMO offers to the organizations.

5.4.1 Summary Question 1

The first question aimed to know the importance of the variables in respect to the functions of PMO on a standardized basis. A large number of participants strongly agreed and agreed that PMO is responsible for developing and implementing a standard methodology having a percentage of 47.6% and 42.6% respectively, but data shows that 9.5% neither agree nor disagree. Thus, making this variable topmost on the function list of PMO with a weighted average of 4.38 among others as shown in the Table 4.

Table 4: Shows the ranking of the PMO functions by importance

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Weighted Average
Develop and implement a standard methodology	0.00% 0	0.00% 0	9.52% 2	42.86% 9	47.62% 10	21	4.38
Supply a set of tools with an effort to standardize	0.00% 0	0.00% 0	14.29% 3	66.67% 14	19.05% 4	21	4.05
Provide mentoring/training for project managers	0.00% 0	14.29% 3	4.76% 1	66.67% 14	14.29% 3	21	3.81
Organize environmental scanning and networking	4.76% 1	9.52% 2	38.10% 8	38.10% 8	9.52% 2	21	3.38
Identify, select and prioritize new projects	0.00% 0	4.76% 1	14.29% 3	57.14% 12	23.81% 5	21	4.00

Manage one or more programmes	0.00% 0	0.00% 0	4.76% 1	71.43% 15	23.81% 5	21	4.19
Allocate resources between projects	0.00% 0	5.00% 1	20.00% 4	65.00% 13	10.00% 2	20	3.80
Allocate resources between projects	0.00% 0	4.76% 1	19.05% 4	71.43% 15	4.76% 1	21	3.76
Monitor and control project performance	0.00% 0	0.00% 0	9.52% 2	61.90% 13	28.57% 6	21	4.19
Report the status of projects to	0.00% 0	4.76% 1	14.29% 3	57.14% 12	23.81% 5	21	4.00

management	0	1	3	12	5			
Conduct post-project reviews or mortems	4.76% 1	4.76% 1	14.29% 3	52.38% 11	23.81% 5		21	3.86

5.4.2 Summary Question 2

In this section, the option to rate PMO contributions to their organization was asked. The importance of PMO was depicted on the basis of enhancing productivity and skillfulness; enhance predictability of PM tools and techniques; and enables standardization and portability of tools and techniques with a weighted averages of 3.71 each, and it followed with facilitating of the use of PM in becoming a core competency and creates external recognition for overall organizational performance as noted in their weighted average of 3.67 each. However, ironically doesn't placing the promotion of staff professionalism in PM at the bottom of the ranking as shown in the Table 5.

Table 5: Shows the ranking of PMOs contribution by importance

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Weighted Average
Do you think PMO enhance predictability and tools and techniques	4.76% 1	0.00% 0	28.57% 6	52.38% 11	14.29% 3	21	3.71
Do you think PMO promotes growing staff professionalism in PM	4.76% 1	4.76% 1	42.86% 9	42.86% 9	4.76% 1	21	3.38
Do you think PMO improve the organizational performance	0.00% 0	4.76% 1	38.10% 8	47.62% 10	9.52% 2	21	3.62
Do you think PMO help in productivity and project teams	4.76% 1	4.76% 1	19.05% 4	57.14% 12	14.29% 3	21	3.71
Do you think PMO creates profitability improvements	0.00% 0	9.52% 2	52.38% 11	28.57% 6	9.52% 2	21	3.38
Do you think PMO facilitate the use of PM in competency	0.00% 0	4.76% 1	28.57% 6	61.90% 13	4.76% 1	21	3.67
Do you think PMO creates external organizational performance	0.00% 0	9.52% 2	28.57% 6	47.62% 10	14.29% 3	21	3.67

Do you think PMO enables standardization and portability of tools and techniques	0.00%	9.52%	23.81%	52.38%	14.29%	21	3.71
	0	2	5	11	3		
Do you think PMO creates an overhead, expensive and unnecessary burden to the organization	4.76%	9.52%	42.86%	28.57%	14.29%	21	3.38
	1	2	9	6	3		
Do you think PMO adds extra layer of bureaucracy that slow down business and consume resources	4.76%	9.52%	38.10%	33.33%	14.29%	21	3.43
	1	2	8	7	3		

5.4.3 Summary Question 3

The PMO structure portray that management philosophy in the industry favors prioritization of methodology compliance over people's own experiences in doing their work has the highest weighted average of 3.67. While the use of tight formal control of most operations by means of sophisticated control and information systems and image that profitability determines the legitimacy of actions (including projects) both has a weighted average of 3.52. Whereas, data collated shows that there is a divergent on the issue of whether sacrificing the achievement of financial objectives for improvement of stakeholder satisfaction was an essential factor with its weighted average having the least on the ranking with 3.19 when asked "*How do you perceive the PMO structure in your organization*". Table 6 shows the details of the data.

Table 6: Shows the ranking of PMO structure by importance

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total	Weighted Average
In my organization decisions are made in the best stakeholder community (incl. shareholder, employees, etc.)	0.00% 0	14.29% 3	33.33% 7	47.62% 10	4.76% 1	21	3.43
In my organization prevails an image that wider social interests determine the legitimacy of actions (including projects)	0.00% 0	0.00% 0	57.14% 12	38.10% 8	4.76% 1	21	3.48
In my organization I am sometimes asked to sacrifice financial objectives for improvement of stakeholder satisfaction	4.76% 1	14.29% 3	42.86% 9	33.33% 7	4.76% 1	21	3.19
In my organization the long term objective is to maximize value for society	4.76% 1	4.76% 1	47.62% 10	38.10% 8	4.76% 1	21	3.33
The management philosophy in my organization favors control of most operations by means of sophisticated information systems	0.00% 0	9.52% 2	33.33% 7	52.38% 11	4.76% 1	21	3.52
The management philosophy in my organization favors emphasis on getting personnel to adhere closely to descriptions	4.76% 1	9.52% 2	23.81% 5	57.14% 12	4.76% 1	21	3.48
The management philosophy in my organization favors institutions (like a PMO) should ensure compliance with the project management methodology	0.00% 0	0.00% 0	57.14% 12	38.10% 8	4.76% 1	21	3.48
The management philosophy in my organization favors methodology compliance over people's own experiences in work	0.00% 0	0.00% 0	42.86% 9	47.62% 10	9.52% 2	21	3.67
In my organization prevails an image that profitability legitimacy of actions (including projects)	0.00% 0	4.76% 1	42.86% 9	47.62% 10	4.76% 1	21	3.52
The management philosophy in my organization favors a emphasis on always getting personnel to follow the formally procedures	0.00% 0	4.76% 1	57.14% 12	38.10% 8	0.00% 0	21	3.33

Chapter 6.0 Discussion of Results

In the data presentations, the findings showed that the research questions which seeks to know the key role of project governance, specifically in the form of PMO, along with the value and contributions of PMO are embedded in the understanding of both the qualitative and quantitative aspect of the research findings. This was obvious as each tends to support the findings from previous research studies. While it was noted by some of the participants that believed that there are a number of ways to deliver project to success, however, others believed that the success criteria lies in the governance governing the planning, execution and controlling of the project. The concrete analysis of these findings from both methods will provide the justification and basis for the implementation of PMO in ABC organization. This section present the synchronization of both data which is collaborated by the existing literature review. Nevertheless, the analyses were conducted separately but some form of integration occurred during the interpretation of the result. Thus, resulting in the territorial of the mixed-method evaluation which was designed for the study.

6.1 Qualitative Analysis

For the purpose of clarity, the interview responses on the structured interviews has been analyzed in this format.

1. Checking and familiarizing with the response for completeness
2. Re-reading and grouping of like-minded responses with regard to the questions
3. Coding in order to enhance the formation of patterns
4. Answers were grouped and labelled via a descriptive wordings

This has been done since qualitative analysis is the process of making a meaningful sense out of the data (Creswell, 2009). In this case, a structured interview was conducted and all respondents were asked the same number of questions in the same wording and sequence (Corbetta, 2003). The use of this interview approach will enable the researcher to have control over the topic and format of the interview, since the issue on governance and PMO are both complex phenomenon. Moreover, it can accommodate no response from the interviewee as a result of not understanding the question. Table 7 and Table 8 detailed the coding and their definitions. Thus, the discussion of the interviews conducted with five (5) academic professionals are as follows:

A. How would you consider the governance structure, considering the governance orientation,

being a facilitator of project success as used in PMO organizations?

The response to this question emerge with two categories: (1) structure (standard; procedure; success criteria) (A1), and (2) disruption (risk management) (A6). Based on this, it appears that governance structure stands as a success criteria that can be applied by the PMO in enhancing success of the project. This categorization concurred with Pinto (2014) and Cooke-Davies (2002) claims on governance on projects being built on structure and the knowledge of risk management. On the other hand, if not present can lead to disruption. Thus, the organization of the PMO set-up will be disrupted. In comparison with the questionnaire No. 2, it indicated there priority contributions of PMO within a governance structure by enabling standardization, improve productivity and help to predict repeatability of PM tools and techniques all with a high weighted average of 3.71. A result that support the PMI (2013) founding on repeatability of project practices (i.e. standardization).

B. Why would you think misunderstanding of the governance structure within PMO can lead to project failure?

In response to this question, two categories emerge: (1) leadership (knowledge; good communication; ability; priority; clarity) (A2), and (2) disruption (risk management) (A6). The implication of the question suggest that leadership plays an important role in the establishment of PMO, and its mismanagement can result to disruption of project. According to Sense and Fernando (2010) emphasized more on the type of leadership appropriate for a project as being very important. In comparison with the questionnaire No. 3, it suggest that with the right leadership in play, organization will favor prioritization of methodology compliance over people's experiences in doing their work. This aspect, alongside other factors with a high weighted average shows the importance of good leadership. A confirmatory study to Sorokin et al., (2011) definitions on the concept of cooperate governance. However, it was observed that misunderstanding of the governance structure may cause a misplacement in priority.

C. What are the characteristics of a good governance? Why are these factors a predictors of either project success/failure?

In regard to this question, there appears to be a unified response as only one category emerge: (1) leadership (knowledge; good communication; ability; priority; clarity) (A2). The responses all

agreed with the major components as defined by Muller (2009) and Too and Weaver (2014) on governance. This may be liken to questionnaire No. 1, where PMO is most agreed to develop and implement a standard methodology, as purported by (PMI, 2013).

D. Can the governance structure influences how PMO utilizes its functional roles in delivery project to success/failure?

The response to this question generated four categories: (1) proper delivery (management) (A3), (2) disruption (risk management) (A6), (3) structure (standard; procedure; success criteria) (A1), (4) leadership (Knowledge; good communication; ability; priority; clarity) (A2). The responses are in accordance with study and definitions by (Cleland and King, 1983; Sense and Fernando, 2010; Klakegg et al., 2008) in relation to priority (market intelligence), leadership, management and control. It shows that the governance structure can influence project deliver, set success criteria, provide good communication, and put risk management structure in place, otherwise, there will be disruption of activities. These are indicated across the questionnaire questions having high weighted average such as questionnaire No. 1, develop and implement a standard methodology (4.38), ability to manage one or more programme (4.19), monitor and control project performance (4.19), identify, select and prioritize new projects (4.00). Also, questionnaire No. 2, enhance predictability of PM tools and techniques (3.71), help in productivity and skillfulness of the project (3.71) and enables standardization and portability of tools and techniques (3.71). Likewise, in the questionnaire No. 3, favors prioritization of methodology compliance over people's own experiences in doing their work (3.67).

E. Would you consider the governance structure as a major component in ensuring PMO contributes meaningfully (such as improving organization design/performance, productivity, profitability, facilitate the competency of PM) to the project success, WHY?

The response to this question generated the highest categories. There were six (6) different categories that emerge: (1) proper delivery (management) (A3), (2) disruption (risk management) (A6), (3) structure (standard; procedure; success criteria) (A1), (4) leadership (Knowledge; good communication; ability; priority; clarity) (A2), (5) Well governed (managed) (A4), (6) overhead (high cost) (A7). Based on this categories, there are indications that PMO will successfully operate within a well-defined governance structure, which is in accordance to many literature study on

governance and PMO (such as: Hill, 2004; Pinto, 2014). In the practical sense of it, many participants within questionnaire No.3 tends towards that fact, by expressing that PMO structure in their organizations favors prioritization of methodology compliance over people's own experiences in doing their work.

F. Could you explain why there are variations in PMO structures in organizations, and its impact on the project success/failure?

The interviewees' responses generated three main categories: (1) leadership (Knowledge; good communication; ability; priority; clarity) (A2), (2) structure (standard; procedure; success criteria) (A1), (3) Flexibility (Numbers of ways; facilitate delivery). It was generally observed that PMO structure/governance need not be rigid, and that there are several ways of accomplishing an objective. Also, it was noted that the leadership are a significant factors in this regards, since the leadership styles varies, however, it was agreed that the standard, procedure or success criteria's still need to be in place in order for PMO to lead project to success. This was noted in questionnaire No. 3 with some factors points to the fact that profitability determines the legitimacy of actions (including projects) with a weighted average of 3.52, whereas others believed that their organization favors tight control of most operations by means of sophisticated control and information systems, and this also had a weighted average of 3.52.

G. What should be the core principle (i.e. basis) when considering governance structure for PMO organizations in achieving a project success?

The responses to this question brought about two categories: (1) structure (standard; procedure; success criteria) (A1), (2) leadership (Knowledge; good communication; ability; priority; clarity) (A2). The responses signifies that core importance of governance to PMO, and leadership and standard was believed to be of utmost important (supported by Hill, 2004; Sense and Fernando 2010). When compared with the questionnaire result, there was a preference in what operates in the participants organizations to favor standard and leadership as noted in questionnaire No. 1 develop and implement a standard methodology, having the highest weighted average of (4.38), while in No. 2, agree to the fact that PMO enables standardization and portability of tools and techniques, also with highest weighted average of 3.71.

H. Is this principle directly applicable to a particular organization/industry? Please explain.

Responding to this question, two categories emerge: (1) proper delivery (management) (A3), (2) Flexibility (Numbers of ways; facilitate delivery). Pinto and Slevin (1989) noted that the characteristics of the leadership (project team leader) is crucial to project success. In response to this question, while many agreed that leadership and standards are core important to enable PMO function properly, it was however, noted in their response to this question that there are a number of ways to delivering project, and that the management of such organization or industry are in the better position to lead the direction of PMO to achieving its project success.

Table 7: Descriptive categories by definitions

Labels	Descriptive codes/categories (themes)
A1	Structure (Standard; Procedure; Success criteria)
A2	Leadership (Knowledge; Good communication; Ability; Priority; Clarity)
A3	Proper delivery (Management)
A4	Well governed (managed)
A5	Flexibility (Numbers of ways; facilitate delivery)
A6	Disruption (Risk management)
A7	Overhead (High cost)

Table 8: Descriptive categories of the interviewees

Questions	Interview I	Interview II	Interview III	Interview IV	Interview V
1	A1	A1	A1		A1; A6
2		A6	A6	A2	A6
3	A2	A2	A2	A2	A2
4	A3	A3; A6	A1	A6	A2
5	A4	A6; A2	A1	A3	A7
6	A5	A2	A2	A5	A1
7	A2	A1	A1	A2	A2
8	A3	A3	A5	A5	A5

6.2 Quantitative Analysis

This section presents the interpretation and discussions on the questionnaires used to assess the importance of PMO characteristics based on (1) PMO functions, (2) PMO contributions, and (3) PMO structure. In the first part of this section, the question was posed as follow to the participants’:

1. Generally speaking, do you think of the following as a PMO functions in your organization?

There were ten variables that was used to assess the functions of PMO as shown in the graph below:

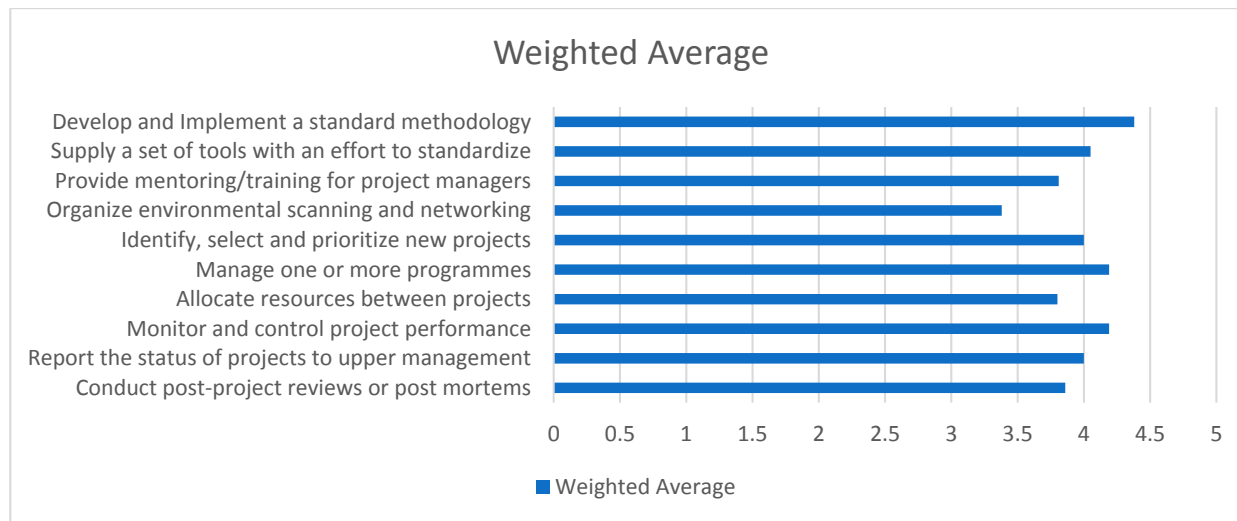


Figure 4: Graph showing the weighted average of the PMO functions

The result from this questions shows that 10 (47.6%) of the participants strongly agree that PMOs are responsible to develop and implement a standard methodology (DISM), 9 (42.9%) agree, while 2 (9.5%) were undecided as to who needs to define the DISM. The implication of this result implies that a greater percentage of the participant agrees to the fact that DISM is actually the responsible of the PMO. The impulse of this shows that cooperate governance governing the governance of project recognizes this fact. Other functional responsibilities of PMO were identified with their high weighted average such as monitoring and control project performance with 4.19, managing one or more programmes (4.19), and supplying a set of tools with an effort to standardize. Figure 4 shows the weighted average of those functions in order of importance.

2. In general, how would you rate the PMO contributions to your organization?

In the case of question 2, there were equally ten variables that were used to assess the contributions of PMO to the organization. While there weren't large number of participants that strongly agreed that PMO renders contributions to the organization, many still believed that PMO makes significant contributions to projects/organizations. This can be observed in the response to the question. The following variables emerges as the most contributions of PMO:

- i. PMO enables standardization and portability of tools and techniques
- ii. PMO enhance predictability and repeatability of PM tools and techniques
- iii. PMO help in productivity and skillfulness of the project

In this top contributions of PMOs, 11 (52.3%) agree to this fact, as in case (i), 5 (23.8%) remained undecided on this case, while 3 (14.3%) strongly agree but, certain percentage amounting to about (10%) of the participants disagree on this basis. As in case (ii), 11 (52.4%) actually agree on this case, but 6 (29%) remained undecided, 1 (4.8%) strongly disagree but 3 (14.2%) strongly agree on this basis. Case (iii), also witness similar trends: 12 (57.1%) agree; 3 (14.3%) strongly agree; 4 (19.0%) remained undecided; 1 (4.8%) strongly disagree, and 1 (4.8%) agreed. The dichotomy in the level of agree and disagree on PMO contributions being observed in this study provided the reasons as to why PMOs contributions hasn't been uniformly agreed on in the literature (Hobbs and Aubry, 2007). However, the outcome based on the weighted average of the contributions in this study can be used as a supporting evidence to implement PMO. Figure 5 shows PMO contributions based on importance.

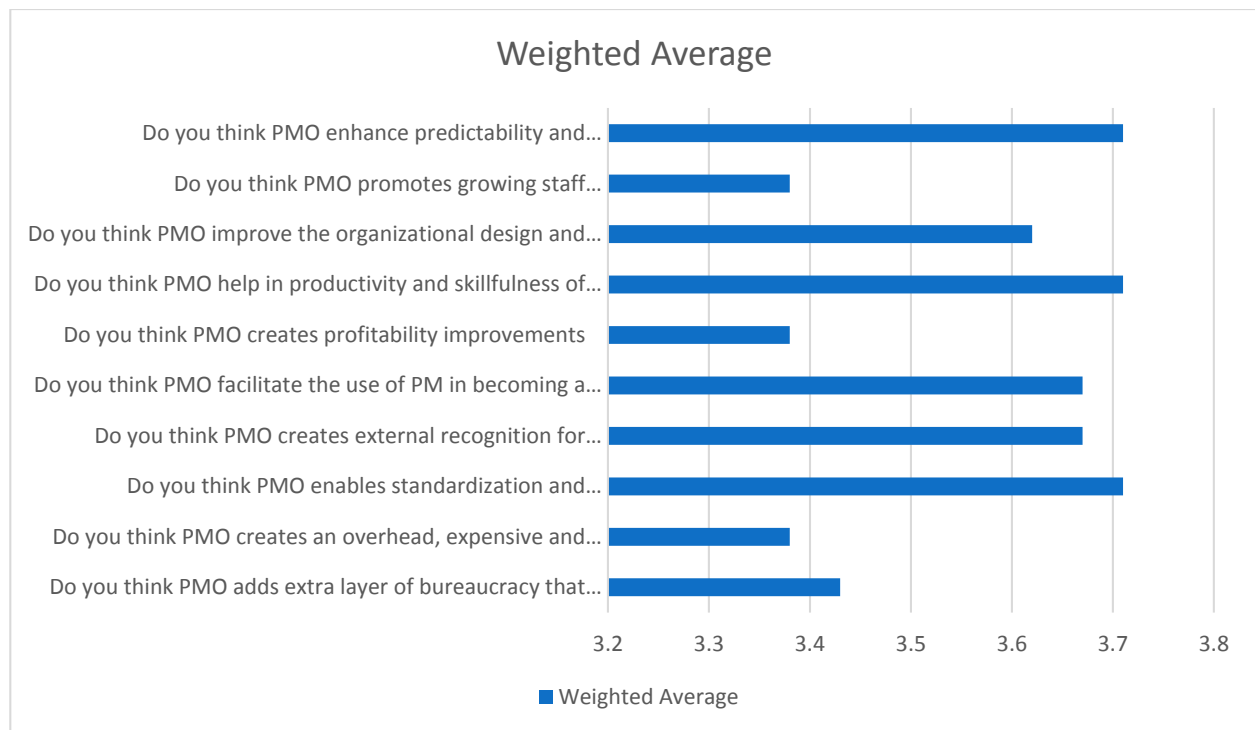


Figure 5: Graph showing the weighted average of the PMO contributions

3. How do you perceive the PMO structure in your organization?

Question 3 measures how the PMO structure are perceived in the organization using ten (10) variables parameters developed from Muller and Lecoeuvre (2014) with little modifications. The variables were used to measure the governance concepts between the shareholder-stakeholder orientation and the project's parent organization. In this study, it permits participants to give an account of their experience on how PMO structure is influenced by this factors with respect to governance.

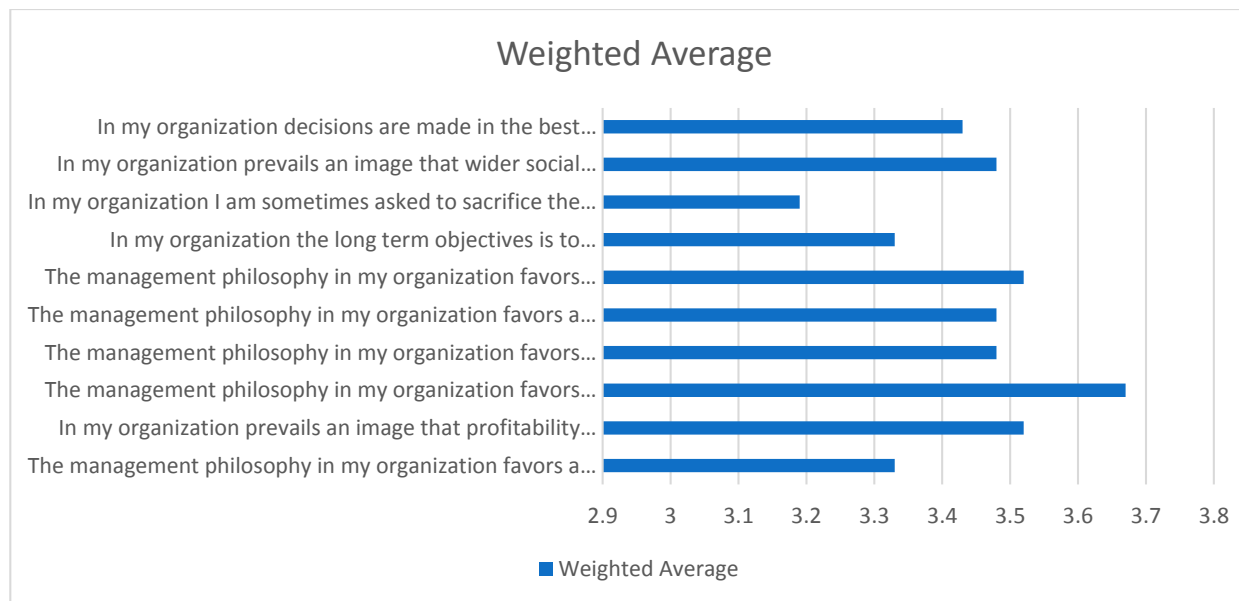


Figure 6: Graph showing the weighted average of the PMO structure by importance

The result shows the parameters that are often considered in the project-based organization that has an established PMO. Among this variables, the management philosophy in organizations favors prioritization of methodology compliance over people's own experiences in doing their work with 10 (47.6%) agree to this fact, and 2 (9.5%) strongly agree. Although, an appreciable participant remained undecided on this fact with a value 9 (42.9%), but there were no participants that disagree on this issue. This can be compared with the interview outcome when questions on core principle (i.e. basis) on governance structure for PMO organizations in achieving a project success was asked. It was unanimously agreed to be leadership and standards. Figure 6 shows the ranking based on order of importance of PMO structure.

Conclusion

The findings from this study has help to provide answers to the research questions underlying this research study, and serve as a supporting evidence to implement PMO in ABC to address the problems. In the introductory chapter, problems during execution stage at ABC revolves around unskilled personnel's, lack of task coordination, non- prioritization of activities, poor project management approach among others, is as a result of lack of project governance as review by the management review. The review on governance and its impact on PMO has been carried out in this study shows that many of the problems can be addressed by adhering to suggestions in this study. For instance, the research question 1, demands the role of project governance, specifically in the form of PMO can be implied based on the themes gotten from the interview which includes: leadership, standards, management and flexibility as noted in the descriptive codes/categories of A2; A1; A3; A5 of the interview results. Moreover, such categories has its practical implications based on the outcomes of the questionnaires with regard to the weighted average in realizing the importance of those themes. In relation to question 2, there is a need to know how PMO can provide the much needed value to enhance project success rather project failure. Such value can be obtained based on the interview response that brought the descriptive categories on flexibility, number of right ways which (PMO) managers need to figure out for project in order to facilitate project success. On a Lasting note, the question of contributions of PMO having any significance to project success is exemplified through the response obtained from the questionnaire where significant gain via organization's PMO led to an improved productivity and skillfulness on the project with a weighted average of 3.71 as the highest on the contribution lists of PMOs. Although, there were some participant's that disagrees to this fact, but over 57% of participants agree on this issue, while 14% strongly believed in it. Moreover, a proper governance approach to PMO as purported by the interviewees will address issue like unskilled personnel's, lack of task coordination, non-prioritization of activities, poor project management among others that characterized the problems encountered at ABC. However, as noted, the lack of governance structure in PMO will lead to disruption of activities which forms a larger part of the problems that characterized ABC.

Recommendation

It is in the interest to address those problems in the researcher's organization that the research study points towards. The findings from the study provide a foundation to act on those problems such that there will be an improvement in the management of project to success at ABC. The governance approach on PMO as reviewed in this study can provide a way out. Thus, it is recommended that the following should be considered in the implementation of PMO at ABC.

1. The implementation of PMO should be guided by the need for the project initiatives so that the appropriately leadership; knowledge; good communication; abilities; clarity and priority can be set, however, some amount of flexibility should be determine by the managers in-charge in order to exploit the various numbers of right ways to achieving project success. This, however, should be guided by structure; standard; procedure and success criteria needed for the project as identified in the interviews findings/categories.
2. Based on the questionnaire results, there is a need to identify the value needed by the business initiative of ABC, such that certain PMO characteristics in terms of functions; contributions; and structure can be given more attention during the implementation process for which there priorities have been identified in this study.
3. Above all, the dichotomy existing on the value/contributions of PMO would demand that the success/failure of the initiated PMO should always be consistently measured to ensure that it is meeting/not meeting the needs for wish it was established.

Recommendation for Future Work

The researcher understands that there are some questions that needed to be addressed during the cause of conducting this research, as such, this has been documented to enhance future studies to be carried out in order to enhance how PMO are implemented in the organizations. To start with, this study employed limited numbers of participants, in future research study, larger numbers of participants should be contacted in order to have a wider horizon for which decision can be based. Also, future research study should identify how the PMO characteristics varies among the different sectors so that some basic fact can be established on that ground.

References

- Abbsai, N.; Wajid, I.; Iqbal, Z. and Zafar, F. (2014). Project failure case studies and suggestion. *International Journal of Computer Applications*, vol. 86(6), pp. 0975-8887.
- Ahola, T.; Ruuska, I.; Artto, K. and Kujala, J. (2014). What is project governance and what are its origins? *International Journal of Project Management*, vol 32, pp. 1321-1332.
- Alsaawi, A. (2014). A critical review of qualitative interviews, *European Journal of Business and Social Sciences*, vol. 3 (4), pp. 149-156.
- Andersen, B.; Henriksen, B. and Wenche, A. (2007). Benchmarking of project management office establishment: Extracting best practices. *Journal of Management in Engineering*, vol 23(2), pp. 97-104.
- Andersen, E.; Grude, K.; Haug, T. and Turner, J. (1987). Goal directed project management. London: Kogan Page/Coopers & Lybrand.
- APM (2004). Directing Change: A guide to governance of project management. High Wycombe, Bucks, UK: Association for Project Management. Free download from: <http://www.apm.org.uk/Governance2.asp>.
- APM, (2011). Directing Change: A Guide to Governance of Project Management. Association for Project Management, UK.
- Artto, K., Kulvik, I., Poskela, J. and Turkulainen, V. (2011). The integration role of the project management office in the front end of innovation, *International Journal of Project Management*, vol. 29 (4), pp. 408-421.
- Atkinson, R. (1999). Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria, *International Journal of Project Management*, vol. 17, pp. 337-342.
- Aubry M, Hobbs B and Thuillier D (2008). Organizational project management: an historical approach to the study of PMOs. *International Journal of Project Management* **26** (1), 38-43.
- Aubry, M. Muller, R.;Hobbs, B.; Blomquist, T. (2010). Project management offices in transition. *International Journal of Project Management*, 28, 766 -778.
- Aubry, M., Hobbs, B., Muller, R., and Blomquist, T. (2010b). Identifying Forces Drivng PMOs Changes. *Project Management Journal*, vol. 41(4), pp. 30-45.
- Aubry, M., Hobbs, B., Thuillier, D., (2007). A new framework for understanding organizational project management through the PMO [J]. *International Journal of Project Management*.

- Aubry, M., Muller, R., Hobbs, R., and Blomquist, T. (2010a). Project management offices in transition. *International Journal of Project Management*, vol. 28 (8), pp. 766-778.
- Avots, I (1969). 'Why does project management fail? California Management Review, pp. 77-82.
- Baar, J.E. (2002). Project planning: A great communicator Journal. *AACE International Transactions*.
- Babaeianpour, M. and Zohrevandi, S. (2012). Using Project Management Office (PMO) to Improve Project Management Abilities, *International Journal of Business and Economics*, IJBE, pp. 155-165.
- Baccarini, D. (1999). "The logical framework method for defining project success", *Project Management Journal*, vol.30 (4), pp. 25-32.
- Baker, B. and Fisher, D. (1988). Factors affecting project success, in D.I. Cleland and W.K. King (eds), *Project Management Handbook*, Van Nostrand, New York.
- Baker, B; Murphy, D. and Fisher, D. (1974). Factors affecting project success. In D.I. Cleland & W. R. King (Eds.), *Project management handbook* (pp. 902-919). New York: Van Nostrand Reinhold.
- Balachandra, R. and Raelin, J. (1984). "When to kill that R&D projects" *Research Management*, pp. 30-33.
- Bang, H., Hansen, A., and Hoff, J., (2000). Demokrati fra meden. Casestudier fra en dansk commune (Copenhagen: Jurist & konomforbundets Forlag).
- Bates, W. S. (1998). "Improving project management." *IIE Solutions*, 30 (10), pp. 42.
- Bedell, R. (1983). 'Terminating R&D projects prematurely' *Research Management*, pp. 32-35.
- Bekker, M. (2014) Project Governance: "Schools of thought" *SAJEMS Special Issue 17*, pp. 22-32.
- Belassi, W. and Tukel, O. (1996). A new framework for determining critical success/failure factors in projects, *International Journal of Project Management*, vol. 14(3), pp. 141-151.
- Belassi, W. and Tukel, O. (1996). A new framework for determining critical success/failure factors in projects. *International Journal of Project Management*, vol. 14(3), pp 141-151.
- Berg, B. L. (2007). *Qualitative Research Methods for the social sciences*. 6th Edition. San Francisco: Pearson Education, Inc.
- Bernardo, M. (2014). Performance Indicators for Enhancing Governance of Projects, *Procedia – Social and Behavioral Sciences*, vol (119), pp. 55-64.

- Bernardo, M. (2014). Performance Indicators for enhancing Governance of Projects, *Social and Behavioral Sciences*, vol. 119, pp55-64.
- Biedenbach, T., and Muller, R., (2011). Paradigms in project management research: examples from 15 years of IRNOP conferences. *International Journal of Management Project Business*, vol.4 (1), pp. 82-104.
- Boddy, D., (2002). *Managing Projects: Building and Leading the Team*. Pearson Education Limited, Great Britain.
- Bourne, L., (2006). *Supersizing PMO Performance*. Proceedings of, PMI Global Congress – Asia Pacific, Bangkok, Thailand.
- Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done?, SAGE Publication, Thousand Oaks, CA, vol. 6(1), pp. 97-113.
- Bryman, A. (2008). *Social Research Methods*. 3rd edition, Oxford University Press.
- Burns, R. B., & Burns, R. A. (2008). *Business Research Methods and Statistics Using SPSS*, 1st edition, SAGE Publications. London.
- Cardinal, J. and Marle, F., (2006). Project: The just necessary structure to reach your goal. *International Journal of Project Management*, 24, 226-233.
- Castellan, M. (2010). Quantitative and Qualitative Research: A view for clarity, *International Journal of Education*, vol. 2 (2), pp. 1-14.
- Caupin, G., et al., (2006). ICB-IPMA Competence Baseline. *International Project Management Association*, The Netherlands.
- Chang, Y. and Ishii, H. (2013). Probing the Implementation of Project Management Office by Using DEMATEL with a Hybrid MCDM Model, vol. 25(6), pp. 935-948.
- Cheema, S., (2005). *From Public Administration to Governance: The Paradigm Shift in the Link between Government and Citizens*, Department of Economic and Social Affairs, United Nations, New York.
- Chia, R. (1995) 'From modern to postmodern organizational analysis', *Organization Studies*, 16 (4): 579-604.
- COED. (2004). *Concise Oxford English Dictionary*. Oxford University Press, Oxford, UK.
- Cohen, J., and Holder-Webb, L., (2006). Rethinking the influence of agency theory in the accounting academy. *Issues Acc. Educ.* 21(1), 17-30.

- Conboy, K. (2010). Project failure en masse: a study of loose budgetary control in ISD projects. *European Journal of Information Systems*, vol. 19, pp. 273-287.
- Cooke-Davies, T. (2002). The ‘real’ success factors on projects. *International Journal of Project Management*, vo; 20, pp. 185-190.
- Cooke-Davies, T. (2002). The “real” success factors on projects. *International Journal of Project Management*, vol 20, pp. 185-190.
- Corbetta, P. (2003). *Social Research Theory, Methods and Techniques*. London: SAGE Publications.
- Crawford, L., Morris, P., Thomas, J., Winter, M., (2006). Practioner development: from trained technicians to reflective practioners. *International Journal of Project Management*. 24 (8), 722-733.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd Edition. Los Angeles: Sage Publications, Inc.
- Creswell, J. W. Plano Clark, V.L. (2007). *Designing and Conducting Mixed Methods Research*, Sage.
- Cuevas-Rodriguez, G., Gomez-Mejia, L., Wiseman, R. (2012). Has agency theory run its course? Making the theory more flexible to inform the management of reward systems. *Corp. Gov. Int. Rev.* 20(6), 526-546.
- Dai, C. and Well, W. (2004). An exploration of project management office features and their relationship to project performance, *International Journal of Project Management*, vol. 22, pp. 523-532.
- Dai, C. X. (2001). *The Role of Project Management Office in Achieving Project Success*. George Washington University, Washington, DC.
- Dai, C. X. and Wells, W. G. (2004). An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, vol 22, pp. 523-532.
- Dalton, D., Hitt, M., Certo, S., Dalton, C., (2007). The fundamental agency problem and its mitigation: independence, equity, and the market for corporate control. *Acad. Manag. Ann.* 1(1), 1-64.
- Davis, K. (2014). Different stakeholder groups and their perceptions of project success. *International Journal of Project Management*, vol. 32, pp. 189-201.

- De wit, A. (1988). Measurement of project success. Project Management, Deminex (Norge), Wergelandsveien, Norway.
- DeJanasz, Dowd, Schneider (2001). Project management [M]. McGraw-Hill.
- Denscombe, M. (1998). The Good Research Guide: For Small-scale Social Research Projects. Buckingham: Open University Press.
- Denzin, N, K. and Lincoln, Y. S. (2000). Handbook of Qualitative Research. Thousand Oaks:Sage Publications, Inc.
- Desouza, C. and Evaristo, J., (2006). Project management offices: A case of knowledge-based archetypes. *International Journal of Information Management*, 26, pp. 414-423.
- Desouza, K. C. and Evaristo, J. R. (2006). Project management offices: a case of knowledge-based archetypes. *International Journal of Information Management*. 26, 414-423.
- Dinsmore, P. (1999). Winning in business with enterprise project management. New York: AMACOM.
- Dinsmore, P. C. (1996). “What if the CEOs find out? The strategic positioning of project management,” in PM Network, pp. 8-11.
- Dinsmore, P.C., and Rocha, L., (2012). Enterprise project governance. AMACOM, New York, NY, USA.
- Dornyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies, Oxford University Press Oxford.
- Dvir, D., Lipovetsy, S., Shenhar, A., Tishler, A., (1998). In search of project classification: a non-universal approach to project success factors. *Research Policy* 27, 915-935.
- Easton, D., (1965). A Systems Analysis of Political Life (New York: Wiley).
- Eisenhardt, K. (1989). Agency theory: an assessment and review. *Acad. Manag. Rev.* 14(1),57-74.
- Eisenhardt, K., (1985). Control: organizational and economic approaches. *Manag. Sci.* 31(2), 134-149.
- Evans, B.; Coon, D. and Ume, E. (2011). Use of Theoretical Frameworks as a Pragmatic Guide for Mixed Methods Studies: A Methodological Necessity? *Journal of Mixed Methods Research*, vol. 5(4), pp. 276-292.
- Fama, E., (1980). Agency problems and the theory of the firm. *Journal Polit. Econ.* 288-307.
- Fellows, R. & Liu, A. (2003). Research Methods for Construction, 2nd edition, Wiley-Blackwell.

- Fleming, Q., and Koppelman, J. (1998). Project teams: the role of the project office. *Cost Engineering*, vol. 40, pp. 33-36.
- Franck, E., and Jungwirth, C., (2003). Reconciling rent-seekers and donators – the governance structure of open source. *Journal of Management Government*. 7(4), 401-421.
- Gallagher, K (1995). Information Technology and Project Management Conference Proceedings, London, pp. 19-36.
- Gerald, K., and Rollins, S., (2003). Advanced Project Portfolio Management and the PMO – Multiplying ROI and Warp Speed, 1st Edicao, McGraw Hill, NY, US.
- Gilbert, N. (2008). Researching Social Life, 3rd edition, SAGE Publications Ltd.
- Greene, J. (2008). Is mixed methods social inquiry a distinctive methodology? *Journal of Mixed Methods Research*, vol.2 (1), pp. 7-22.
- Guba, E.G. and Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences, In: Denzin, N.K., Lincoln, Y.S. (Eds.), *The Sage Handbook of Qualitative Research*, 3rd ed. SAGE Publications Inc., Thousand Oaks, CA, USA, pp. 191-216.
- Hall, P. (1980). *Great Planning Disasters* Weidenfeld and Nicolson, London.
- Hill, G. (2004). Evolving the project management office: A competency continuum. *Information systems management journal*, pp41-51.
- Hill, M. (2001). *The complete project management office handbook*. New York: Aurebach Publications.
- Hobbs, B. and Aubry, M. (2007). A multiphase research program investigating project management offices (PMOs): The results of phase 1. *Project Management Journal*, vol. 38(1), pp. 74-86.
- Hoffman, T. (2003). Value of project management offices questioned. *Computerworld*, vol. 37(29), p.7.
- Hurt, M. and Thomas, J. (2009). Building value through sustainable project management offices. *Project Management Journal*, vol. 40(1), pp. 55-72.
- Ika, L. (2009). Project Success as a Topic in Project Management Journals. *Project Management Journal*, vol. 40(4), pp. 6-19.
- Ittner, C. and Larcker, D. (1997). Product development cycle time and organization performance, *Journal of Market Research XXXIV*, pp. 13-23.

- Janssen, M.; Voort, H. and Veenstra, A. (2015). Failure of large transformation projects from the viewpoint of complex adaptive systems: Management principles for dealing with project dynamics. *Information system front*, vol. 17, pp. 15-29.
- John, W., and Elizabeth, D., (2013). The role of project management offices (PMOs) in IS project success and management satisfaction. *Journal of Enterprise Information Management*, vol. 26(3), pp. 316-336.
- Johnson, R. Onwuegbuzie, A. and Turner, L. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, vol. 1(2), pp. 112-133.
- Jugdev, K., Thomas, J., Delisle, C.L., (2001). Rethinking project management: old truths and new insights. *Project Management* vol. 7, pp. 36-43.
- Kankonen, K., (1999). Multi-character model for the construction project definition process. *Automation in Construction*, vol. 8 (6), pp. 625-632.
- Kerzner, H. (2003). Strategic planning for a project office. *Project Management Journal*, vol. 34(2), pp. 13-25.
- Kerzner, H., (1989). *Project management – a system approach to planning, schedule, and controlling*. Van Nostrand Reinhold, New York.
- Kerzner, H., (1998). *Project Management, a Systems Approach to Planning, Scheduling and Controlling*, Harold Kerzner, 6th Edition, Van Nostrand Reinhold.
- Klakegg, O., Haavaldsen, T., (2011). Governance of major public investment projects: in pursuit of relevance and sustainability. *Internal Journal Management Project of Business*, vol. 4(1), pp. 157-167.
- Klakegg, O., Williams, T., Magnussen, O., Glasspool, H., (2008). Governance frameworks for public project development and estimation. *Project Management Journal*, vol. 39, pp. S27-S42.
- Knutson, J. (1994). "The top management project steering committee, part II," in *PM Network*, pp. 11-12.
- Knutson, J. (1998). The project office: an evolutionary implementation plan, *PM Network*, pp. 14-16.
- Kothari, R., (2004). *Research Methodology Methods and Techniques* 2nd edition: Published by New Age International (P) Ltd.
- Krosnick, J. A. and Presser, S. (2010). 'Question and Questionnaire Design' in: *Handbook of Survey Research*. 2nd Edn. Emerald. Pp. 263-313.

- Krosnick, J. A., & Presser, S. (2010). Questionnaire design. In J.D. Wright & P. V. Marsden (Eds.), *Handbook of Survey Research* (Second Edition). West Yorkshire, England: Emerald Group.
- Kumar, R. (2005). *Research Methodology*, 2nd edition, SAGE Publications Ltd.
- Kutsch, E.; Ward, J.; Hall, M. and Algar, J. (2015). The contribution of the project management office: A balanced scorecard perspective, *Information system management*, vol. 32, pp. 105-118.
- Kvale, D. (1996). *Interviews*. London: SAGE Publications.
- Kwak, Y. H. and Dai, C. X. (2000). Assessing the value of project management offices (PMO), PMI Research Conference, Washington, DC.
- Kwak, Y., and Anbari, F., (2009). Analyzing project management research: perspectives from top management journals. *International Journal of Project Management*, vol. 27, pp. 435-446.
- Lan, L., and Heracleous, L., (2010). Rethinking agency theory: the view from law. *Acad. Manag. Rev.* 35(2), 294-314.
- Law, J., and Martin, E. (2009). *A Dictionary of Law*, Oxford Dictionary of Law, 7th ed. Oxford University Press, Oxford.
- Lechler, T., (2000). Empirical evidence of people as determinants of project success. In: Lundin, R.A., Hartman, F. (Eds.), *Projects as Business Constituents and Guiding Motives*. Kluwer Academic Publishers, USA, pp. 217-228.
- Leedy, P. and Ormrod, J. (2001). *Practical research: Planning and design* (7th ed). Upper Saddle River, NJ: Merrill Prentice Hall. Thousand Oaks: SAGE Publications.
- Letza, S., Sun, X., and Kirkbride, J., (2004). Shareholding versus shareholding: A critical review of corporate governance. *Corporate Governance*, vol. 12, pp. 242-262.
- Lindahl, M. and Rehn, A. (2007). Towards a theory of project failure. *International Journal Management. Concepts Philos*, vol. 2(3), pp. 246-254.
- Linehan, C. and Kavanagh D. (2006) 'From project ontologies to communities of virtue.' In Hodgson D. and Cicmil S. (eds.) *Making Projects Critical*, London: Palgrave.
- Lubatkin, M., (2005). A theory of the firm only a microeconomist could love. *Journal Management Inq.* 14(2), 213-216.
- Luis, C., and Menezes (2001). *Project Management* ["Gestao de Projetos"], 1st Edition, Atlas Press, SP, Brazil.
- Mahaney, R. Ledere, A., (2011). An agency theory explanation of project success. *Journal Comput. Inf. System*, vol. 51(4), pp. 102-113.

Marsh, D., (2000). The programme and project support office. In: Turner, Rodney J., Simister, Stephen, J. (Eds.), *Handbook of Project Management*, England, Gower, Aldershot, pp. 131-144.

Martin, L.; Pearson, M. and Furumo, K. (2007). IS project management: Size, practices and the project management office. *Journal of Computer Information Systems*, vol. 47(4), pp. 52-60.

Martin, N. Pearson, J. and Furumo, K. (2007). IS project management: size, practices and the project management office, *Journal of Computer Information Systems*, vol. 47(4), pp. 52-60.

Martins, V. and Martins, R. (2012). Outsourcing operations in project management offices: The reality of Brazilian companies. *Project Management Journal*, vol. 43(2), pp. 68-83.

Martinsuo, M., Hensman, N., Artto, K., Kujala, J., Jaafari, A., (2006). Project-based management as an organizational innovation: driver, changes, and benefits of adopting project-based management. *Project Management Journal*, 37(3), pp. 87-97.

May, K. M. (1991). Interview techniques in qualitative research: concerns and challenges. In Morse J M (ed) *Qualitative nursing research*. Pp. 187-201. Newbury Park: Sage Publications.

McDaniel, C. and Gates, R. (2006). *Marketing Research Essentials*. Fifth Edition. John Wiley & Sons, United States of America.

McMillan, J. H. (2000). *Educational research: Fundamentals for the consumer* (4th ed.). White Plains, NY: Addison Wesley Longman, Inc.

Menke, M. (1997). Managing R&D for competitive advantage, *Research Technology Management*, vol. 40, pp. 40-42.

Michel, T., (2008). *Creating Project-Based Organizations to Deliver Value*, PM World Today, Vol. X, issue III.

Midler, C. (1994). *L'auto qui n'existait pas*. Paris: InterEditions.

Miller, R., Hobbs, B., (2005). Governance regimes for large projects. *Project Management Journal*. Vol. 36(3), pp. 42-51.

Morgan, H. and Soden, J. (1979). 'Understanding MIS failures' Database, vol. 5, pp. 157-171.

Morris, P. and Hough, G. (1993). *The Anatomy of Major Projects*. John Wiley and Sons, Chichester.

Morris, P. W. G. and Hugh, G.H. (1986). *Preconditions of Success and Failure in Major Projects* Templeton College, the Oxford Centre for Management Studies, Kington Oxford, Technical paper 3.

Morris, P.W.G., (2001). Updating the project management bodies of knowledge. *Project Management Journal*, vol. 32(3), pp. 21-30.

Muller, R and Jugdev, K. (2012). Critical success factors in projects – Pinto, Slevin, and Prescott – the elucidation of project success. *International Journal of Managing Projects in Business*, vol 5(4), pp. 757-775.

Muller, R. and Lecoivre, L. (2014). Operationalizing governance categories of projects. *International Journal of Project Management*, vol.32, pp. 1346-1357.

Muller, R., (2009). Project Governance. Gower, London.

Munns, A. and Bjeirmi, B. (1996). The role of project management in achieving project success, *International Journal of Project Management*, vol. 14(2), pp. 81-87.

Naoum, S.G. (1998). Dissertation Research and Writing for Construction Students, 1st edition, Butterworth-Heinemann, Oxford.

Neuman, W. (2005). Social Research Methods: Quantitative and Qualitative Approach, 6th edition, Allyn & Bacon.

Nyberg, A., Fulmer, I., Gerhart, B., Carpenter, M. (2010). Agency theory revisited: CEO return and shareholder interest alignment. *Acad. Manag. Journal*. 53(5), 1029-1049.

O’Leary, T., and Williams, T. (2008). Making a difference? Evaluating and innovative approach to the project management centre of excellence in a UK government department. *International Journal of Project Management*, vol. 26(5), pp. 556-565.

Office of Government Commerce (OGC), (2008c). Successful delivery toolkit. Retrieved November 23, 2008 from http://www.ogc.gov.uk/resource_toolkit.asp.

Organization for Economic Co-operation and Development (2004). OECD Principles of Corporate Governance, www.oecd.org.

Pellegrinelli, S. Partington, D., Hemingway, C., Mohdzain, Z., Shah, M., (2007). The importance of context in programme management: an empirical review of programme practices. *International Journal Project Management*, 25(1), pp. 41-55.

Pepper, A., and Gore, J., (2012). Behavioral agency theory new foundations for theorizing about executive compensation. *Journal Manag*, (forthcoming).

Peter, M. and Jamieson, A. (2004). Translating Corporate Strategy into Project Strategy, Project Management Institute, Pennsylvania, PA, US.

- Pettigrew, A., (2003). Innovation forms of organizing: progress, performance, and process. In: Pettigrew AM, Whittington R, Melin L, Sanchez-Runde C, Van den Bosch FAJ, Rugrook W, Numagami, T, editors. Innovative forms of organizing. London, (UK): SAGE Publications, p. 331-351.
- Pinto, J., and Slevin, D. (1987). 'Critical factors in successful project implementation' IEEE Trans Engineering Management, EM-34, 22-27.
- Pinto, J.K., Covin, J.G., (1989). Critical factors in project implementation: a comparison of construction and R&D projects. Technovation, vol. 9(1), pp. 49-60.
- Pinto, K. and Prescott, J. (1988). "Variations in critical success factors over the stages in the project life cycle", *Journal of Management*, vol. 14(1), pp5-18.
- Pinto, K. and Slevin, D. (1988). "Project success: definitions and measurement techniques", *Project Management Journal*, vol. 19(1), pp. 67-73.
- PMI (1996). A Guide to the Project Management Body of Knowledge. Project Management Institute, USA.
- PMI (2004) A Guide to the Project Management Body of Knowledge. Project Management Institute, Newtown Square, PA.
- PMI- Project Management Institute (2004) – PMBOK – Guide to knowledge of Project Management, Project Management Institute, Pennsylvania, PA, US.
- Pollack, J. (2007). The changing paradigms of project management Journal. *International journal of Project Management*.
- Prabhakar, G. (2008). What is project success: a literature review. *International Journal of Business and Management*, vol. 26, pp. 3-10.
- Project Management Institute (2004). A guide to the Project Management Body of Knowledge (PMBOK® guide), 3rd ed. Project Management Institute, Pennsylvania.
- Project Management Institute, (2013a). A guide to the project management body of knowledge, 5th ed. Project Management Institute, Inc., Newtown Square, PA, USA.
- Rad, P. (2001). Is your organization a candidate for project management office (PMO), *AACE International Transactions*, p. 7.1-7.4.
- Rad, P. F. (2001). "Is Your Organization a Candidate for Project Management Office (PMO)?," *Transactions of AACE International*, pp. 7.1 -7.4.

Sage, D.; Dainty, A. and Brookes, N. (2014). A critical argument in favor of theoretical pluralism: Project failure and the many and varied limitations of project management. *International Journal of Project Management*, vol. 32, pp. 544-555.

Santos do Valle, J.; Silvia, W. and Soares, C. (2008). Project Management Office (PMO) – Principles in Practice, *ACEE International Transactions*, pp. 7.1 – 7.8.

Saunders, M., Lewis, P. and Thornhill, A. (2007). Research methods for business students (5th ed.). London: Prentice Hall.

Selviaridis, K., Norman, A., (2014). Performance-based contracting in service supply chains: a service provider risk perspective. *Supply Chain Manag. Int. Journal* 19(2), 153-172.

Shenhar, a.; Levy, O. and Dvir, D. (1997). Mapping the Dimensions of Project Success. *Project Management Institute*, vol. 23(2), pp. 5-13.

Shenhar, A.J., (2001). One size does not fit all projects: exploring classical contingency domains. *Management Studies*, vol. 47(3), pp. 394-414.

Shenhar, A.J., Dvir, D., (1996). Toward a typological theory of project management. *Research Policy*, pp. 607-632.

Shenhar, A; Dvir, Dov; Levy, O; and Maltz, A. (2001). Project Success: A Multidimensional Strategic Concept. *Long range planning journal*, vol. 34, pp. 699-725.

Shepherd, D.; Patzelt, H. and Wolfe, M. (2011). Moving forward from project failure: Negative emotions, affective commitment, and learning from the experience, *Academy of Management Journal*, vol. 54(6), pp. 1229-1259.

Shleifer, A. and Vishny, R. (1997). A survey of corporate governance. *The Journal of Finance*, vol. 52, pp. 737-783.

Singh, R., Keil, M., and Kasi, V., (2009). Identifying and overcoming the challenges of implementing a project management office. *European Journal of Information Systems*, vol. 18(5), pp. 409-427.

Singleton, J., Royce, A., and Straits, B. C. (2005). Approaches to social research (4th ed.). New York, NY: Oxford University Press.

Smyth, J. and Morris, P. (2007). An epistemological evaluation of research into projects and their management: Methodological issues Journal. *International Journal of Project Management*.

Soares, C.; Silvia, W., and Valle, J., (2008). Project Management Office (PMO) – Principles in Practice, *ACEE International transactions*, pp1-10.

Soderlund, J. (2011). Pluralism in project management: navigating the crossroads of specialization and fragmentation. *International Journal of Management*. Review 13, pp. 153-176.

Sorokin, et al. (2011). Nonprofit Governance and Management, 3rd Edition, Society of Corporate Secretaries and Governance Professionals and Business Law Section of the American Bar Association.

Standish Group International (2000). IT project survey. PM network.

Stanleigh, (2006). From Crisis to Control: New standards for project management. *Ivey Business Journal*, pp. 1-4.

Tashakkori, A. and Creswell, J. (2007). Exploring the nature of research questions in mixed methods research. *Journal of Mixed Methods Research*, vol.1, pp. 207-211.

Tashakkori, A. and Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage.

Teddlie, C and Tashakkori, A. (2003). Major issues and controversies in the use of mixed methods in the social and behavioral research. Thousand Oaks, CA: Sage, pp. 3-50.

Toivonen, A. and Toivonen, P. (2014). The transformative effect of top management governance choices on project team identity and relationship with the organization – An agency and stewardship approach, *International Journal of Project Management*, vol. (32), pp. 1358-1370.

Toney, F. and Powers, R. (1997). Best Practices of project management group in large functional organizations: results of the fortune 500 Project Management Benchmarking Study. PMI; 1997. P. 84.

Too, E. and Weaver, P. (2014). The Management of Project: A Conceptual Framework for Project Governance, *International Journal of Project Management*, vol. 32(8), pp. 1382-1394.

Turner, J. (1990). What are projects and project management [Henley Working Paper 9002]. Henley-on-Thames: Henley Management College.

Turner, J. (2006). Governance of project portfolio management. Project Portfolio Management Year Congress, Amsterdam, The Netherlands.

Turner, J. and Muller, R. (2003). On the nature of the project as a temporary organization, *International Journal of Project Management*, vol. 21, pp. 1-8.

Turner, J. R. (1999). *The handbook of project based management*. 2nd ed. London: McGraw-Hill.

Turner, J.R. (1993). *The handbook of project based management*. London: McGraw-Hill.

Turner, J.R., (1999). *The Handbook of Project-based Management*. McGraw-Hill Publishing Company, UK.

Turner, R. and Serrador, P. (2014). The Relationship between Project Success and Project Efficiency, *Procedia-Social and Behavioral Sciences*, vol. 119, pp. 75-84.

Turner, R. and Zolin, R. (2012). Forecasting Success on Large Projects: Developing Reliable Scales to Predict Multiple Perspectives by Multiple Stakeholders over Multiple Time Frames, *Project Management Journal*, vol. 43, pp. 87-99.

Turner, R., Huemann, M., Anbari, F., Bredillet, C., (2010). *Perspectives on projects*. Routledge, London and New York.

Turner, R.; Anbari, F., and Bredillet, C. (2013). Perspectives on research in project: the nine schools. *Glob. Bus Perspective*, vol. 1, pp. 3-28.

Umble, E., Haft, R., and Umble, M. (2003). Enterprise resource planning: Implementation procedures and critical success factors, *European Journal of Operational Research*, 146, pp. 241-257.

UN (2007). *Public administration and democratic governance: Governments Serving Citizens*, 7th Global Forum on Reinventing Government Building Trust in Government, Vienna, Austria.

Unger, B., Gemunden, H., and Jonas, D. (2012). The three roles of project portfolio management offices: Their impact on portfolio management execution and success. *International Journal of Project Management*, vol. 30 (5), pp. 608-620.

United Nations Department of Economic and Social Affairs, (2003). *World Public Sector Report: E-Government at the Crossroad*. New York, United Nations.

United Nations Development of Economic and social Affairs, (2001). *World Public Sector Report: Globalization and the State*, New York, United Nations.

United Nations Development Programme, (2003). *The Role Of Think Tanks In Shaping Government Strategy: Experience From Central And Eastern Europe*.

United Nations Development Programme, “Reconceptualizing Governance, “Discussion Paper vol. (2). New York: UNDP (1997): pg., 9.

Valle, Jose Angelo Santos do, VPMO (2001). Virtual Project Management Office, presentation at the 3rd, Seminar on Project Management. [“3, Seminario de Gereciamento de Projetos”] PMI-DF, Brasila –DF, available on the web site: www.javalle.com.br.

- Van de Ven, A. H. (2007). *Engaged scholarship: Creating knowledge for science and practice*. Oxford, UK: Oxford University Press.
- Ward, J and Daniel E. (2013). The role of project management offices (PMOs) in IS project success and management satisfaction. *Journal of Enterprise Information Management*, vol. 26(3), pp. 316-336.
- Wateridge, J. (1995). IT projects: A basis for success. *International journal of project management*, vol. 13, pp. 169-172.
- Williams, C. (2007). Research Methods, *Journal of Business and Economic Research*, vol. 5 (3), pp. 65-72.
- Williams, T., Klakegg, O.J., Magnussen, O.M., Glasspool, H., (2010). An investigation of governance frameworks for public projects in Norway and the UK. *International Journal Project Management*. 28(1), 40-50.
- Winter, M., Smith, C., Morris, P., Cicmil, S., (2006c). Directions for future research in project management: the main findings of a UK government-funded research network. *International Journal Project Management*. 24, 638-649.
- Wiseman, R., Cuevas-Rodriguez, G., Gomez-Mjia, L., (2012). Towards a social theory of agency. *Journal Manag. Stud.* 49(10), 202-222.
- Xue, Y.; Turner, J. and Anbari, F. (2013). “Using results-based monitoring and evaluation to deliver results on key infrastructure projects in China”, *Global Business Perspectives*, to appear.
- Zikmund, W.G. (2007). *Business Research Methods*, 7th Edition, Thomson South-Western, Ohio.
- Zikmund, W.G., & Babin, B.J. (2010). *Exploring Marketing Research* (10th Ed.), Australia; (Mason, Ohio): South-Western/Cengage Learning.
- Zikmund, W.G., & Babin, B.J. (2012). *Marketing Research* (10th Ed.), Australia; (Mason, Ohio): South-Western/Cengage Learning.